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SUMMARY OF INVESTIGATIONS RELATING TO GRAMMAR, LANGUAGE, AND COMPOSITION

By R. L. LYMAN

THE UNIVERSITY OF CHICAGO · CHICAGO · ILLINOIS

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PREFACE

Earlier monographs in this series have summarized investigations in the fields of arithmetic and reading. Preparation of the present monograph received generous support from the University of Chicago.

The author desires to acknowledge his indebtedness to Miss Nelle E. Moore for valuable assistance in the preparation of the manuscript.

R. L. L.

August, 1928

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CHAPTER I

INTRODUCTION

Purpose.—English is commonly separated into two main divisions, known as the "reading-literature" and the "language-composition" branches. Like other subjects in the curriculum, the various phases of English have been subjected to careful investigations, especially during the period from 1900 to 1928. Studies in the field of reading have been summarized and evaluated by Gray in an earlier monograph of this series and in supplementary articles.[1]

Gray has confined his summaries to the single aspect of English known as "reading," including the more significant studies in literature only as the latter develop facts and yield inferences concerning the nature of the reading processes. The present monograph endeavors to render similar service with respect to the language-composition branch of English; it undertakes to assemble, classify, summarize, and interpret the most important studies in this field with the expectation that educators may have in compact form, for work both in revising the curriculum and in modifying methods of teaching, the major facts and principles as they have been revealed by such researches. A supplementary purpose is to indicate the extent to which the scientific movement in education has been applied to grammar, language, and composition, to point out the merits and demerits of the investigations, and to suggest problems that seem to call for additional researches.

Sources.—An attempt was made to prepare an exhaustive bibliography of all studies relating to grammar, language, and composi-

[1] William Scott Gray, *Summary of Investigations Relating to Reading.* Supplementary Educational Monographs No. 28. Chicago: Department of Education, University of Chicago, 1925. Pp. viii+276. "Summary of Reading Investigations (July 1, 1924, to June 30, 1925)," *Elementary School Journal*, XXVI (February, March, April, and May, 1926), 449–59, 507–18, 574–84, 662–73. "Summary of Reading Investigations (July 1, 1925, to June 30, 1926)," *Elementary School Journal*, XXVII (February and March, 1927), 456–66, 495–510. "Summary of Reading Investigations (July 1, 1926, to June 30, 1927)," *Elementary School Journal*, XXVIII (February, March, and April, 1928), 443–59, 496–510, 587–602.

tion as such studies appear in books, chapters of books, monographs, pamphlets, and articles in magazines. In addition, a few of the more important studies in the form of unpublished theses were borrowed from the libraries of several colleges and universities, their contents analyzed, and summaries or references included in appropriate places. Because of limitations of space, studies dealing with vocabulary and spelling are not included. Moreover, the investigations in these fields warrant treatment in separate monographs.

Bibliography.—As the bibliography expanded and the articles were carefully examined, materials were separated into two categories. In a primary bibliography were listed all articles which contain facts in the form of objective data secured by apparently valid methods of investigation. This bibliography, including all the articles to which reference is made in the body of the monograph, is annotated and appears on pages 256–92. Empirical articles, based largely on opinion or on secondary sources, and descriptions of instructional procedures not accompanied by objective measurements of results were placed in a secondary bibliography. To this secondary bibliography were relegated most of the more or less routine measurements in local surveys and many other articles which present objective data slight in amount, relatively insignificant in meaning, or secured through highly questionable methods. As finally compiled, the two bibliographies include 415 articles, of which 264 are considered of sufficient merit to be mentioned in the monograph. As indicated, the endeavor was to examine all studies; however, the sources are so varied and the publications are so widely scattered that nothing more than a fairly exhaustive list is claimed.

Organization of the report.—Grammar, language, and composition are so intimately associated that very often data and inferences touching upon all three are found in one study, especially if the study is extensive. This fact makes reference to such studies in two or more different places necessary. However, to reduce multiple references to a minimum, it seemed best to distribute the studies in four major categories: (1) studies which bear especially on the content and organization of the language-composition curriculum; (2) studies which relate to the more mechanical elements of writing and speaking, known as "usage"; (3) measurements in composition deal-

ing with larger rhetorical relations and general excellence of expression; and (4) investigations of methods of teaching the language-composition branches, especially as they deal with the effects of individual or group instruction.

Interpretation of the articles.—Constant endeavor was made to allow the studies and the investigations to speak for themselves by selecting from each article one or more of its major contributions. The possibility is not at all remote that, with reference to the more extensive investigations, this monograph selects for review portions of articles which the authors of the articles might consider of minor significance. So far as possible, such treatment was avoided. Again, in a few instances, the reviews and summaries point out concerning the data presented seemingly justifiable inferences on which the investigators themselves did not comment.

The limitations of objective studies in this field.—The fact that educational literature to date includes only a few more than two hundred and fifty studies which may be called, some of them by courtesy, "objective" investigations in grammar, language, and composition indicates that the workers are pioneers; many of their methods of experimentation are primitive and imperfect. Objective investigations in the various phases of education, as in all the social sciences, are exceedingly difficult; measuring devices are far from perfected; a complex phenomenon such as composition quality seems to defy careful analysis into constituent parts; even drill, when applied to a single phase of language work, such as punctuation, consists of so many aspects that any one of them can be isolated and studied separately only with the greatest difficulty. Moreover, the language-composition division of English instruction does not consist of subject matter the mastery of which can be readily ascertained, as can a child's ability to spell one hundred words or his ability to repeat a poem that he has memorized; the curriculum in the language-composition branch of English consists of pupil activities; it involves skills, habits, and attitudes which are difficult to isolate and to measure.

Unquestionably, the pioneer investigations in the language-composition branch of English are open to one criticism which may or may not be applicable to researches in other subjects in the curric-

ulum. They are in many instances superficial in this important respect: they measure pupil products and assume that by so doing they are evaluating the manifold intangible processes of mind by which those products were attained. For example, studies are included in the present summary which estimate the influence of composition topics on pupils' imagination. Certain topics enable children to write compositions that are better than the compositions they write on other topics. Such a conclusion is, of course, worth while in itself, but it is superficial because the impelling forces inherent in topics are not revealed; the reasons for the stimulating effects of topics on the feelings and memories and imaginings of the children are left to conjecture. Research at present leaves us largely at sea as to why (and the reasons must be many) pupils advance in composition quality less than one step a year on the Nassau scale and as to why supervised self-appraisal in language errors on the part of the pupils themselves is more effective than the checking of errors by the teacher followed by the pupils' correction of the errors. In short, studies relating to this branch of English instruction, in this vital respect at least, although superior to the archaic methods of appraising pupils' growth by the finished products alone, leave many vital questions unanswered.

Most of the investigators in this field are to be congratulated because they have in general avoided elaborate statistical treatment of their data. Instinctively shunning heavy barrages of statistics and intricate mathematical formulas, they have been content to collect their data and to present them in comparatively simple tabulations; they have employed statistics mainly to ascertain central tendencies, to indicate relations in terms of correlations, and to test the reliability of their procedures and results. Moreover, their generalizations are almost invariably accompanied by suitable reservations and suggestions as to the need of verification.

CHAPTER II

INVESTIGATIONS CONCERNING THE CURRICULUM: OBJECTIVES, CONTENT, AND ORGANIZATION

1. THE OBJECTIVES OF INSTRUCTION

All the studies reviewed in this monograph relate directly or indirectly to the curriculum. Most investigators seem to be imbued with the progressive idea that the curriculum is not primarily the organization and distribution of subject matter but the guidance and direction of pupil activities and processes relative to appropriate subject matter. Certainly this theory ought to obtain with respect to the language-composition branch of English instruction.

Modern investigations which directly concern the language-composition curriculum proceed along two complementary lines. The first is the analysis of language activities most frequently needed in daily life; the second is the analysis of the language usages and difficulties of pupils at various grade levels and of adults. The first approach, represented by comparatively few investigators, results in the statement of general objectives of instruction; the second approach, represented by many more investigators, tries to discover specifics of instruction and attempts to place those specifics in the proper grades.

This chapter reviews first the studies the major purpose of which has been to ascertain suitable general objectives of instruction in the language-composition branch of English. To accomplish this purpose, investigators have assembled teachers' judgments and have analyzed practices common in daily life.

a) PURPOSES AND NEEDS OF LANGUAGE INSTRUCTION

Survey of social objectives.—The most comprehensive study of the objectives of English instruction was made by Pendleton, who systematically examined seven major sources in order to draw up a catalogue of social objectives:

(1) Direct statements from 272 teachers of English, contributed personally to the investigation; (2) similar direct utterances from about 100 educators,

not teachers of English but in contact with the problem; (3) all the articles, editorials, notes, and advertisements pertaining to English which were published in eleven important educational periodicals during five recent years; (4) the relevant portions of 67 standard general writings on education; (5) 118 standard volumes about English or the teaching of English; (6) 49 state or city courses of study, or teachers' manuals, in English; and (7) 62 widely used school textbooks on various phases and educational levels of this subject.

To supplement and check the social validity of the catalogue thus secured, the actual linguistic usages of many adults were also studied. The group thus investigated consisted of 2,759 individuals residing in 99 widely scattered communities. All were educated persons, considered to be leaders. The very many linguistic abilities listed during this inquiry were collated with those put forward by teachers as school objectives, with the result that no really important omissions in the teachers' lists were discovered [**170**: 4].

After assembling 1,581 aims, Pendleton submitted them to a group of eighty experienced teachers of English, each of whom classified the items in six categories arranged in the order of decreasing importance: (1) the greatest importance, (2) great importance, (3) important for some persons, (4) not negligible but not notably important, (5) negligible and should not be taught, (6) "unable to decide about these statements." The judgments of the various appraisers were statistically treated, and on this basis the items were arranged in the order of importance.

The ten aims or objectives of instruction in language and grammar considered most important by the eighty teachers are as follows. The numbers indicate the places of the respective items in the total list as arranged by Pendleton in the order of importance from 1 to 1581 on the basis of the composite opinions of the teachers.

2. The ability to speak, in conversation, in complete sentences, not in broken phrasing.

3. The ability to write—in ordinary writing situations and without great concentration of attention—English which is grammatically correct.

4. The attitude of prompt, effective abolishment of any error in one's written English as soon as it is called to one's attention once.

7. The ability to capitalize speedily and accurately in one's writing.

17. The ability to use in conversation only forms of expression which are grammatically correct.

21. The ability to punctuate accurately and speedily while writing.

26. The attitude of *expecting one's self* without hesitation or doubt *to write good English.*

39. The ability to write one's thoughts fluently in acceptable sentences.

49. The ability to grasp quickly an author's point of view and central theme.

50. The ability to speak—in ordinary conversational and public-speaking situations, and without great concentration of attention—English which is grammatically correct [170: 36–38].

The ten most important objectives of instruction in oral composition are as follows:

28. An attitude of avoidance of all affectation and lack of genuineness in manner of speaking.

47. An attitude of avoidance, in a public speech, of all affectation and lack of genuineness in *manner* of speaking.

69. The habit, in conversation, of accuracy in verbal description.

87. The habit of attention, during one's public speaking, to all physical matters of one's own person which can influence one's hearers.

90. The ability to use effectively, in public speaking, simple, direct, conversational language rather than a peculiar oratorical phraseology.

97. The ability to respond effectively to an inquiry.

98. The ability to ask brief, effective questions which will call forth precisely the information one desires.

114. The ability to encourage a public speaker by being a good attentive and responsive listener.

116. An attitude of avoidance of vulgarity and profanity in one's language in public speaking.

117. An attitude of seeking always with enthusiasm to better one's speech from every possible source of improvement [170: 37–41].

The ten most important objectives of instruction in written composition are as follows:

6. The ability to use intellectual economy in expression—few words, not many; a thing said well once, not poorly and then supplemented by restatement.

23. The ability to write effectively simple, straightforward business letters in the routine of daily life.

56. The ability to begin a writing simply and directly with a significant first sentence.

62. The ability to express in one's writing one's meaning skilfully, precisely, and attractively, without padding with additional, meaningless words and phrases.

78. The ability to write easily and rapidly effective informal notes and letters in one's routine daily personal life.

88. The attitude and patience to re-write until quite satisfactory one's important writings.

98. The ability to ask brief, effective questions which will call forth precisely the information one desires.

99. The ability to write effective, courteous letters of protest or inquiry to mercantile firms, public officials, or service corporations.

101. The ability to produce a composition observing throughout the principle of unity.

108. The ability to distinguish instantly and accurately between *past participles* and *past tenses* in one's own use of language [**170**: 36–41].

The classification used by Pendleton is very loose; many of the 1,581 objectives might easily be classed in two or more of the categories suggested. Good drew up a corresponding list of objectives by canvassing English courses of study published by state departments of education and city school systems, listing the items in the order of frequency of mention. Comparison of the first ten of his twenty-seven objectives of English composition with Pendleton's lists suggests that the statements of the objectives in Good's sources were considerably less specific than the statements in Pendleton's sources.

1. Increase powers of expression.
2. Develop ability to think clearly and honestly.
3. Collect and organize material for a speech.
4. General improvement of speech habits.
5. Give training in artistic forms of expression.
6. Understand and apply means which aid in securing vividness.
7. Write a courteous letter according to forms in general use.
8. Ability to think on one's feet.
9. Afford opportunity to do imaginative writing.
10. Create feeling for style through use of good models [**84**: 231].

After a critical summary of thirty-two state courses of study in 1926, Schlauch (**198**: 32–47) presented the aims or objectives most frequently specified for Grades I–VIII, inclusive.

The most urgent needs for improving the teaching of English.—Searson assembled the judgments of 8,799 teachers of English—6,183 in elementary schools and 2,616 in secondary schools—as to the needs of improving instruction in the mother-tongue. The ten most important items in the order of their ranking by numbers of judgments are as follows (**204**: 106):

1. Specific working plans for the co-operative teaching of English in all subjects 7,359
2. Fixed requirements for teacher in each grade of work 7,027
3. Maximum standards as to numbers in class, number of periods a day, number of classes, and so on 6,693
4. Simple refinements of practical tests and measurements for each grade 6,658
5. Definite standards of English work for each grade or year 6,379
6. A definite reorganization of the curriculum on a use basis 5,883
7. Handbooks of specimen assignments for each grade or year 5,385
8. A summary of practical laboratory helps and equipment needed 4,358
9. Condensed statement of definite things English teachers may profit by in the trades and professions 3,865
10. Determination of reasonable standards of textbook-writing 3,769

Frequency of mention of objectives in courses of study.—By a critical examination of fifty-eight courses of study ranging in date from 1918 to 1923, Zook determined the frequency of mention of all the objectives which bear directly on the subjects of language, grammar, and composition. For each grade and for all grades combined he made frequency lists to show the goals of instruction most frequently recommended. The courses of study examined were widely representative of the entire country; the total population influenced by them was more than one-third of the population of the United States. Zook's technique, known as "counting the number of mentions," was highly subjective and at best could determine only general trends. Table I (**263**: 8) shows the ten objectives most frequently mentioned.

Not satisfied with such general statements, Zook used Bobbitt's seventeen objectives of English expression (**19**: 92) and added two others of a social nature as contrasted with strictly language import. He added also a miscellaneous group. Under the twenty headings Zook classified all related recommendations in the courses of study and determined percentages of mention, as shown in Table II (**263**: 25).

Makers of courses of study wisely place emphasis on organization and expression of ideas (Item 6) as the first requisite of excellent writing and speaking while at the same time they keep accuracy and correctness (grammar, Item 5) in close association with organ-

ization and expression of ideas. The time will come when the recommendation of the National Joint Committee on English will be accepted in full:

In the composition course, content should appeal to the pupil as first in importance; organization, second; details of punctuation, spelling, sentence structure, choice of words (matters of careful scrutiny), third.[1]

TABLE I*

THE TEN MOST FREQUENTLY NAMED LANGUAGE-COMPOSITION OBJECTIVES IN FIFTY-EIGHT COURSES OF STUDY, GRADES I–VIII

Objective	Frequency of Mention
1. Ability to eliminate and correct errors	272
2. Growth in written composition	147
3. Growth in oral composition	136
4. Ability to speak fluently	128
5. Ability to write and answer letters	121
6. Ability to write a paragraph	119
7. Ability to use a wide vocabulary	109
8. Ability and ease in conversation	90
9. Ability to capitalize one's written vocabulary	72
10. Ability to use good English	65

* Rearranged from author's data.

TABLE II

PERCENTAGES OF RECOMMENDATIONS RELATING TO BASAL OBJECTIVES IN LANGUAGE IN FIFTY-EIGHT COURSES OF STUDY, GRADES I–VIII*

Basal Objective	Per Cent	Basal Objective	Per Cent
1. Pronunciation	2.9	11. Oral presentation	3.6
2. Writing	1.5	12. Oral reading	2.7
3. Spelling	5.2	13. Effective speech	2.9
4. Vocabulary	2.5	14. Outlining	1.4
5. Grammar	15.8	15. Business forms	2.4
6. Organization and expression of ideas	17.8	16. Literary production	2.1
7. Letter-writing	4.7	17. Dramatics	1.8
8. Good form	9.7	18. Morals and manners	2.0
9. Conversation	9.6	19. Interests	1.7
10. Discussion	4.5	20. Miscellaneous	5.3

* Adapted from author's data.

[1] *Reorganization of English in Secondary Schools*, p. 57. Report by the National Joint Committee on English representing the Commission on the Reorganization of Secondary Education of the National Education Association and the National Council of Teachers of English. Bureau of Education Bulletin No. 2, 1917.

Bobbitt made the statement that the teachers of Los Angeles who co-operated with him in weighing objectives in all fields of instruction were more completely agreed on the objectives of English expression than on the objectives in any other field and reported a basal list of objectives for general training as determined by them.

BASAL OBJECTIVES FOR LANGUAGE TRAINING

1. Ability to pronounce one's words properly.
2. Ability to write with proper legibility, ease, and speed.
3. Ability to spell the words of one's writing vocabulary.
4. Command over an adequate reading, speaking, and writing vocabulary.
5. Ability to use English which is grammatically correct.
6. Ability to organize and express one's thought effectively.
7. Ability to write a letter according to forms in general use.
8. Ability to use good form, order, and arrangement in all of one's written expression: capitals, punctuation, abbreviations, syllabication, margins, alignment, etc.
9. Ability to converse easily, agreeably, and effectively. Ability to utilize *conversation* as a profitable and enjoyable means of participating socially in the thought of the world.
10. Ability to join in more or less formal discussions of topics. Ability to participate in public discussion of current social problems as a leisure occupation.
11. Ability to present one's thought orally to an audience.
12. Ability to present written or printed thought effectively through oral reading.
13. Ability in speech to use the voice in ways both agreeable and effective.
14. The ability to prepare an outline, brief, or summary of a lecture, article, chapter, or book.
15. Ability to draw up or fill out business forms in common use.

For the general training of a minority of students, those with the necessary special aptitudes and capacities, the following appear also to be approved:

16. Amateur ability to do literary production of different kinds.
17. Ability to take part in dramatics, theatricals, pageants, etc. [19: 92]

Evidently the value of such compilations is limited by the accuracy and by the reliability of the individuals who constitute the board of judges.

In general, the objectives as set forth by these studies may be summarized as follows: (1) They adapt instruction to the actual practices needed in daily life. (2) They make school experiences resemble the experiences of daily life. (3) They consider the curric-

ulum as made up of experiences rather than of subject matter. (4) They extend "expression" to a dignified place in every subject of the curriculum in order to multiply "normal" writing and speaking occasions. Expression is always the handmaid of subject matter and thinking. (5) They emphasize the audience values of all expression. (6) They stress the significance of individual diagnosis and individualized curriculums based on language needs. (7) They set forth the value of self-discipline in language controls on the part of pupils.

Limitations of the summaries.—Such studies as those made by Zook and by Pendleton do not yield results commensurate with the arduous labor involved. They give in large perspective the major lines of thinking which are actuating the makers of courses of study. Not one of the ten objectives found by Zook to be most frequently mentioned for Grades I–VIII by fifty-eight courses of study is a language specific, however, unless it be No. 9 (conversation). Even the objectives which Zook called "basal" are extremely general. Any consensus of opinion of many workers all of whom think in generalities is certain to result in generalities something like this: the objectives of instruction in language, grammar, and composition are to develop in pupils the abilities to speak and write fluently, effectively, and correctly. As to the findings from the studies themselves, quite apparently English teachers are not certain what they need to accomplish. Moreover, it is little less than a tragedy to place first in the list of teaching objectives, as did the teachers in Pendleton's study (**170**: 36), the ability to spell correctly all the words in one's writing vocabulary.

b) LANGUAGE PRACTICES OF DAILY LIFE

The investigations so far cited, essentially the assembling, classifying, and evaluating of many individual judgments, summarize the ideals and the general purposes that are common in teaching English today. Although the technique of investigation is subjective, no better procedure has been discovered for revealing the general objectives of competent workers in a field. Such results are open to the criticism that they merely summarize current practices; they assume that what is, is best.

Language activities used in daily life.—A somewhat more fruit-

ful approach to curriculum problems is the examination of the linguistic activities actually practiced in daily life. Some investigators endeavor to determine the practices of adults on the theory that pupils should be taught to perform efficiently the activities needed frequently in the common situations of life.

Searson asked 3,600 adults in twelve different occupations "What relative emphasis is placed upon writing, reading, and speaking in doing everyday work?" The replies as presented in

TABLE III

ESTIMATES SHOWING THE RELATIVE EMPHASIS PLACED ON WRITING, READING, AND SPEAKING IN TRANSACTING THE AFFAIRS OF LIFE

Persons Classified as to Occupation in City of 10,000 and Surroundings	Number	Number of Units of Reading for Each Unit of Writing	Number of Units of Speaking for Each Unit of Reading	Number of Units of Speaking for Each Unit of Writing
Lawyers	40	21	26	212
Physicians	40	34	44	598
Ministers	80	41	60	992
Teachers	200	37	74	1,095
Merchants	360	26	54	567
Clerks	320	24	70	676
Barbers	40	36	80	1,159
Commercial salesmen	200	41	90	1,544
Printers and newspaper men	80	19	23	178
Authors	40	31	21	260
Day laborers	540	57	82	1,881
Farmers	1,500	45	63	1,143

Table III (**203**: 329) indicate the need of expanded and enriched instruction in oral English.

Searson also presented community demands for English instruction in another way. The following outline shows the minimum training desired for the average worker by more than 60 per cent of those reporting (**203**: 330).

880 Business Men	480 Professional Workers	2,240 Men in Other Occupations
Clear, ready speech	Clear, ready speech	Ready speech
Accurate pronunciation	After-dinner speaking	To direct men
Good conversational powers	Before jury	To explain how things are done
Clear presentation of facts	In pulpit	To report facts or news
Ability to close a deal	With patient	To get along with each other

880 Business Men	480 Professional Workers	2,240 Men in Other Occupations
Ability to read	Ability to read	Ability to read
Advertisements	For general information	Newspapers (current literature)
Descriptions of articles	For technical information	Plans, specifications, directions
Current literature	Special professional journals	Letters, contracts
Good books	Good books	
Ability to write	Ability to write	Ability to write
Accurate spelling	Accurate spelling	Letters
Good penmanship	Briefs, business letters, forms, reports	Use other business forms
Good business letter	Technical articles	
Clever advertisement	Advertisements, printing, editing	
Clever news item or story	News and feature stories	
Ability to think clearly in all these relationships	Ability to investigate, gather, organize, and summarize facts	
	Expression—sense	
	Thinking new things	

The least this summary of minimum demands can possibly indicate is that all plans of work designed to prepare any of these workers for average usefulness must include (1) complete courses in oral composition, oral salesmanship, and training in the several other kinds of speaking shown; (2) complete courses in current literature based upon newspapers, magazines, and special and professional journals; (3) greater emphasis of written work, of accuracy in spelling, business letters and forms, briefs, reports, news-writing, advertisement-writing, printing, and editing; (4) greater emphasis upon training to gather, organize, and interpret facts; (5) suggestions for drawing illustrations from the life of the pupil, and equipment to train him at real work [**203**: 331].

Relative practical importance of English activities.—Clapp (**53**) asked 2,615 persons the question: "Which of the common uses of English have you found to be most important in connection with your practical affairs?" The replies were tabulated as follows: interviews, 732; conversation, 461; reading, 275; writing, 214; public speaking, 91; listening, 31. This question was followed by the inquiry: "Which of these common uses of English have you found to be most important in connection with your personal and social en-

joyment?" The replies, which may be summarized as follows, indicated the prevalence of informal uses of English and showed the importance of ordinary speaking and the relative insignificance of public speaking: conversation, 742; reading, 565; public speaking, 93; interviews, 75; writing, 52.

A survey of the use made of the English language in "carrying out enlightened living" was made by Baker in Dallas, Texas, in order to secure data to determine the proportionate amounts of written and spoken English in use. The results of fifty interviews with citizens representing twenty-three different occupations were reported for three types of activities—letter-writing, carrying on other business, and making speeches.

> If two exceptional answers be omitted from each list, the percentage of written English would drop respectively to 7, 9, and 8, and that of spoken English would rise to 93, 91, and 92.
>
> Out of fifty answers, twenty-four reported all letters spoken; twenty, all other English in business spoken; and thirty-one, all speeches spoken [11: 597].

Language skills the public wants.—A study made by Searson endeavored to answer with more extensive data the question: "What language skills does the public most want and most need?" The investigator assembled information through a period of eight years, securing 93,106 judgments of 7,752 persons in forty-two states. He classified the judgments under four headings: reading skills, 38,689; speaking skills, 22,613; writing skills, 20,452; general language skills, 11,352. The language skills receiving the highest sanction were these (204: 103):

1.	Ability to use good penmanship	5,815
2.	Ability to spell correctly	5,771
3.	Good conversational ability	4,884
4.	Ability to think clearly and cleverly	4,521
5.	Persuasive skill	4,413
6.	Skill to direct the work of others	3,743
7.	Skill to pronounce words accurately	3,677
8.	Skill to gather, organize, and interpret facts	3,515
9.	Ability to present facts clearly	3,458
10.	Ability to write good business letters, forms, briefs, and reports	3,068

Searson himself said that his data were not collected under adequate conditions of scientific safeguard. "They represent composite

judgments of a widely distributed series of groups, taken in the ordinary human way and reported under careful directions by persons without motive to deceive" (204: 104).

TABLE IV*

LANGUAGE ACTIVITIES AMONG ADULTS IN THREE EDUCATION GROUPS

ACTIVITY	1,335 COLLEGE GRADUATES		703 HIGH-SCHOOL GRADUATES		577 GRAMMAR-SCHOOL GRADUATES	
	Number Reporting Use	Percentage Reporting Difficulty	Number Reporting Use	Percentage Reporting Difficulty	Number Reporting Use	Percentage Reporting Difficulty
Interviews:						
1. Adjusting claims	922	25	474	28	393	32
2. With customers	850	34	420	36	345	33
3. Collecting information	1,137	42	534	38	434	41
4. Oral reports to superiors	845	39	419	42	291	38
5. Oral instructions to subordinates	990	36	433	30	373	31
6. Business conferences	1,057	36	432	43	322	42
Conversation:						
1. With strangers	1,272	44	682	46	531	45
2. At social gatherings	1,247	43	640	47	487	41
3. Over the telephone	1,264	33	669	32	513	32
Public speaking:						
1. Public discussion	1,034	53	390	53	303	50
2. Speech-making	809	49	227	59	193	52
3. Acting as chairman	958	28	307	38	253	37
Writing:						
1. Keeping records	1,133	25	564	25	394	26
2. Notes of invitation, etc	1,103	39	527	41	366	40
3. Reports of meetings	695	22	272	28	220	30
4. Instructions to others	657	20	240	19	201	25
5. Business letters	1,067	27	507	29	374	34
6. Publicity items	604	36	266	37	218	44
Listening:						
1. To addresses	1,037	24	472	21	366	25
2. In interviews or conferences	637	30	262	39	214	34

* Adapted from author's data.

Language activities of adults.—Clapp determined the frequency of various language activities as reported by 2,615 adults in three hundred cities in thirty-five states. He calculated also the percentage of three education groups who reported that they found difficulty in the use of the various items. Table IV (53: 17) shows the results.

On the basis of these data of language needs, Clapp's committee

of the National Council of Teachers of English made the following recommendation concerning the English curriculum.

> The schools might well devote more attention to a number of the language activities which, according to the returns, are widely used by persons of the many callings and social groups reporting, and which are reported as giving much difficulty. These activities in particular are: Interviews: word-of-mouth inquiries, reports to a superior, instructions for subordinates, conferences. Conversation: with casual acquaintances, at social gatherings, over the telephone. Public speaking: informal discussion, preparing addresses. Writing: informal notes and memos for one's self; formal notes of invitation, introduction, etc. Reading: legal documents. Listening: to an interview, a conference, or a public meeting [**53**: 46].

A survey of English in eighty four-year high schools in eleven southern states made by Sneed revealed the phases of instruction which the English teachers regarded as weak. Instructional elements most frequently reported as unsatisfactory were: (1) written English—personal letters, explanations and descriptions, and business letters; (2) spoken English—conversing with strangers, conversing at social gatherings, conversing in business conferences, and listening and auditing with apprehension and judgment (**217**: 98–99).

Need for further studies.—There is need for further investigations of what the schools are actually doing in the teaching of communication and interpretation of thought by means of language. Such investigations should study aims, curriculums, methods, and classroom conditions to determine their adequacy for enabling men and women of the future to meet more effectively the language demands made upon them. This is especially true since the subjects in Clapp's investigation were of the opinion that their school and college instruction in English was of comparatively limited value. Two of the questions asked were as follows: "To what extent has the English instruction received in school or college aided you in practical affairs?" "To what extent has the English instruction received in school or college aided you in social affairs?" To the first question, 569 replied, "indispensable or very important"; 477, "necessary foundation but experience needed to supplement"; 360, "little help or none." In response to the second question, 323 said, "indispen-

sable"; 295, "experience needed to supplement"; and 266, "little help or none" (**53**: 23). It is not surprising that one investigator (**151**: 48) found that a very large share of the comments made by college instructors on themes of Freshmen are worthless. She examined critically the notations and comments on eight hundred themes from eleven different colleges, classifying them as follows: "worthless," 286; "encouraging but not directive," 226; "encouraging and directive," 78; "condemnatory but not directive," 138; "condemnatory and directive," 72. The number of people who think that their school experiences in language were of no help or of very moderate help is not surprising but is somewhat disconcerting. This is especially true since high-school pupils, at least 1,600 of them, as reported by Minnick and Brown (**155**), rank English on a par with bookkeeping as "the most useful subject."

Perkins, Cowles, and Seaver (**171**) reported the results of an inquiry made of high-school graduates concerning the value of their instruction in English. The subjects included 320 graduates of 125 high schools in business. They designated the most important items in the following order: grammar, 226; spelling, 225; punctuation, 161; letter-writing, 161; oral composition, 153. Three hundred and fifteen high-school graduates in college listed the items in the same order, designating "punctuation" as "very important." All these subjects, presumably in Freshman college English, called attention to the need of detailed drill in correctness. A similar study made by Hatfield (**94**) yielded approximately the same expressions of opinion. To be noted especially is that the subjects in both these studies were either in clerical positions or in college English classes, a fact which may have prejudiced their judgments as to relative values.

Emphasizing the need of additional inquiries, Clapp's committee pertinently said:

> But such investigation, to be trustworthy and adequate, needs to consider more than the work now being done in the schools. It should include: (*a*) Fuller knowledge of . . . . the language demands of adult life, and the difficulties of various situations and relations. This involves patient and thorough study both of general demands experienced by all persons and of the special demands of particular callings and social groups. Without this we cannot justly evaluate the work now being done by the schools. (*b*) Fuller knowledge of the nature of the instrument and medium of language itself—the conditions of its effective

use, its laws, its possibilities, its limitations, and its innate defects. We need to know what can be accomplished in the study of language and what cannot. It may be that in the past we have been at some points attempting the impossible, that at other points we have been neglecting elementary duties. (*c*) Fuller knowledge of the educative agencies of later life as regards command of language. It may be that some things at which school and college have been working can wisely be left to the influences of maturity. It may be also that these agencies of later life can be brought into more effective co-operation with the special work for which the schools must be responsible [**53**: 47].

The functional centers of expression.—Quite obviously the listing of activities is a more or less arbitrary process unless some careful method of analysis is used to guard against the limitations of individual judgment. Johnson employed what he called a method of "introspectional and observational" analysis, asking 208 women (104 Freshmen in Stephens College and their mothers) to list the activities needed in the practice of the mother-tongue. He requested them to include only those activities which "had actually been performed" and those which "the individual had been called upon to perform and would have performed if she had been capable of doing so" (**118**: 16). One hundred and four lists (each Freshman's experience supplemented by similar activities from her mother's experience) were submitted. Table V (**118**: 27) shows the number of lists in which each activity (first twenty items from a total of seventy-three reproduced) was mentioned and the total frequency of mention for each activity.

Johnson classified the seventy-three types of activities, of which only the twenty most frequently named are listed in Table V, in nine major types of English expression, which he called "functional centers," that is, social needs that must be satisfied through English training, and which therefore should dictate the character of the English curriculum: (1) letters, (2) conversation, (3) group discussion, (4) formal discussion, (5) reports, (6) personal memoranda, (7) special-occasion talks, (8) directions, instructions, and explanations, and (9) story-telling (**118**: 29–33).

The studies just reviewed would be valuable if they accomplished nothing more than to point out the need for a new emphasis on the rhetoric of daily life. The nine functional centers of expression are indeed far removed from the traditional and still all too frequent

division of composition into narration, exposition, description, and argument—an academic classification which ought to be reserved at least for the upper high-school grades and preferably for the college level.

c) SEARCH FOR SPECIFICS OF CURRICULUM CONTENT

Types of studies.—Six lines of approach have been followed by investigators in the endeavor to ascertain the content most appropriate for the curriculum. First may be mentioned the researches which have endeavored to secure objective data concerning the disciplinary values of formal grammar as contrasted with the functional values; second, careful analyses of expressional products of high merit in order to determine their major characteristics; third, surveys of the frequency of various types of sentences used by pupils at given school levels; fourth, computations of the frequency with which certain language details are used (items such as punctuation marks as contrasted with items such as complex sentences, which are here included in the third category); fifth, computations of the frequency of specific language errors made by pupils at various

TABLE V

FREQUENCY OF ACTIVITIES IN 104 LISTS

Activity	List Frequency	Total Frequency
Conversing	104	371
Writing letters	104	351
Relating incidents and telling stories	88	125
Keeping a diary	68	119
Telephoning	53	110
Engaging in group discussion	70	97
Writing invitations and replies	72	72
Giving talks	50	72
Keeping accounts	45	64
Writing telegrams	58	63
Giving directions	52	58
Teaching a Sunday-school class	57	57
Entertaining guests	30	56
Doing club work	53	53
Acting as secretary	34	52
Making out reports	34	49
Setting an example in the use of English	40	40
Taking part in an entertainment program	24	39
Meeting and introducing people	34	36
Making a report to a group	25	34

school levels; sixth, analysis of meritorious expressional products to discover specifics of instruction in rhetoric.

(1) THE DISCIPLINARY VALUES OF FORMAL GRAMMAR

In 1906 Hoyt attempted to trace historically the teaching of English grammar in order to ascertain the ground on which the teaching of the subject is justified by current pedagogical literature and by teachers. He found remarkable agreement as to the object of teaching grammar and consequently in the arguments advanced to justify its being taught. From his survey Hoyt recorded consensus of opinion to the effect that grammar (1) disciplines the mind, (2) prepares for the study of languages, (3) gives command of an indispensable terminology, (4) enables one to use better English, and (5) aids in the interpretation of literature (**107**: 473).

In order to test the reliability of the belief that grammar disciplines the mind, Hoyt devised three tests—one in grammar, one in composition, and one in ability to interpret a poem—and administered them to two hundred ninth-grade pupils in Indianapolis. Correlations for the three tests were extremely low: between grammar and composition, .18; between grammar and interpretation, .21; between interpretation and composition, .28. Hoyt concluded that "there is about the same relationship existing between grammar and composition and grammar and interpretation as exists between any two totally different subjects, as grammar and geography" (**107**: 485). Rapeer followed Hoyt's methods with groups of ninth-grade pupils in Minneapolis and secured even lower correlations: between grammar and composition, .23; between grammar and interpretation, .10; between interpretation and composition, .24 (**186**: 131). Both Hoyt and Rapeer based their procedures on an earlier investigation by Rice (**189**).

These early informal investigations were followed by Briggs's elaborate experiments to determine the disciplinary value of formal grammar. After a careful consideration of all the specific claims as to the discipline inherent in grammar in the writings of educational theorists, in the contents of a number of widely used grammar textbooks, and in the opinions of writers on grammar, Briggs summed up the alleged values under ten headings. Formal grammar tends to train children (1) to see likenesses and differences, (2)

to test a definition critically, (3) to apply a definition thoroughly, (4) to make a rule or definition, (5) to test reasons, (6) to take from a mass of data all that are necessary and to use them in reaching a judgment, (7) to demand all necessary data before drawing a conclusion, (8) to reason in other fields—for example, in arithmetic, (9) to reason syllogistically, and (10) to detect "catches" (**28:** 262).

Briggs then attempted to determine whether the abilities developed through formal grammar extend into fields other than grammar. He devised or selected tests in each of the values listed and administered them to pupils in two seventh grades in the Horace Mann School, of Teachers College, Columbia University, and to pupils in five public schools in Illinois.

He taught by contrasted methods two seventh-grade classes in the Horace Mann School for three thirty-minute periods a week for six months, having first determined that the two groups were of approximately the same ability in language. Their median ages were 12.9 and 12.8 years, respectively. A preliminary set of tests was given both classes. Class 1, the experimental group, shown by preliminary tests to be slightly inferior to Class 2, was taught formal grammar for three months of the allotted time; Class 2 was taught composition and language. After a second set of tests, the teaching methods were reversed with the two groups for a second period of three months, at the end of which time the first tests were again given to all the children. During the two periods of three months the only teaching variable was the difference between instruction in formal grammar and instruction in composition. Similar experiments were later conducted by Briggs in five Illinois schools with a larger number of pupils.

Representative gains in the groups in the Horace Mann School were indicated by the results of an examination in grammar at the end of the first three months, in which the formal-grammar group made an average score of 25.88 as contrasted with 44.76 for the language group. Still further, all the class records in the second and third series of tests except two of the tests in Group I (ability to see likenesses and differences) showed a slight superiority of gain for the non-grammar classes. Briggs concluded as follows:

> These particular children after the amount of formal grammar that they had, do not, as measured by the means employed, show in any of the abilities

tested improvement that may be attributed to their training in formal grammar. . . . . There is a possible exception in the tests of Group I [ability to see likenesses and differences] [28: 342].

Achievement in formal grammar and in applied grammar.—Segel and Barr gave a test in formal grammar and a test in applied grammar to more than one thousand Sophomores and Juniors in the senior high schools in Long Beach, California. One hundred items were included in each test. The results of the two tests were correlated for 304 cases. Correlations were also computed between the results of the tests and mental ability and between the results of the tests and teachers' marks. The average scores made by classes in English 2 B, English 2 A, and English 3 B, summarized for the two tests, revealed the fact that the scores on the formal-grammar test decreased while those on the applied-grammar test increased. The authors found that formal grammar was forgotten but that language usage improved. They said that "no more relationship exists between the two sorts of grammar than there is on the average between any two of the high-school subjects of any curriculum" (207: 402). The numerical average of the correlations between high-school subjects was .50; the correlation between formal grammar and applied grammar, .48. The authors concluded, therefore, that "formal grammar has no immediate transfer value so far as applied English grammar is concerned" (207: 402).

Asker made a statistical comparison of knowledge of certain phases of formal grammar, ability to judge the correctness of a sentence, and ability to use English as revealed through composition. Four grammar tests devised by Starch were given to 295 Freshmen in the University of Washington. The relation between average scores in English tests and marks in composition and the relation between marks in composition and average marks in all subjects were determined, from which the author concluded that "knowledge of formal grammar influences ability to judge the grammatical correctness of a sentence and ability in English composition only to a negligible degree" (9: 111). Boraas (21) reached somewhat the same conclusion.

(2) THE MAJOR CHARACTERISTICS OF ACCEPTABLE EXPRESSIONAL PRODUCTS

The decline of confidence in formal grammar as a disciplinary subject has been accompanied by an insistence on what is rather

vaguely called "functional grammar." This term appears to signify the grammatical usages which function directly in speech and in writing. That such grammar ought to be taught at some time to at least some pupils can hardly be questioned. The questions as to where, how, and to whom it shall be taught appear to have been considered empirically or philosophically but not objectively. On the contrary, the following question has been the subject of several investigations: What are the elements of English usage in which a knowledge of grammar will help? In brief, these studies, known generally as "activity analyses," attempt to determine the specifics —the "particularized objectives"—that should be included in a language curriculum.

Relative importance of the various topics of grammar as determined by usage.—Stormzand (**224**) sought to determine what present-day usage suggests as to the importance of different elements of instruction in grammar. He analyzed (1) a large mass of contemporaneous writing, ranging from the best types of classical prose to the ephemeral matter of the daily newspaper and "light" fiction; (2) a large number of compositions written by pupils in all grades from the sixth through the high school and college; and (3) letters and articles written by adults. From these different levels of current usage he selected and analyzed ten thousand sentences to determine the frequencies of usage with respect to the following topics of grammar: (1) sentence structure; (2) clauses; (3) phrases; (4) parts of speech; (5) uses of nouns—kinds, cases, and construction; (6) uses of pronouns—kinds, cases, and construction; (7) verbs—tense, mood, kinds, and regularity; (8) adjectives—kinds, comparison, and regularity; (9) adverbs—kinds and comparison; (10) all other parts of speech.

Stormzand presented the specific findings with regard to each of the ten items listed. The outstanding conclusions with regard to Item 4 (parts of speech) are summarized in Table VI (**224**: 71). Stormzand found the classification of sentences according to meaning unimportant, since in all the material analyzed 92.2 per cent of the sentences were declarative; 6.0 per cent, interrogative; and 1.8 per cent, imperative. The distribution of sentences according to form revealed a more important classification. Complex sentences

were found to constitute 44.8 per cent of the total number of sentences analyzed, while simple sentences constituted 38.0 per cent, and compound sentences 17.2 per cent.

In discussing these data, Stormzand said:

> We cannot judge on the basis of frequency of the different parts of speech alone which should receive the chief emphasis or what relative importance should be given to each in constructing a course in grammar. Complexity of form, variation in inflection, and the chances for error in each case must all be taken into consideration. . . . .
>
> One who is familiar with the typical textbook in grammar knows that the attention given to parts of speech has largely been determined by the number of grammatical forms and details that had to be presented in order to give a

TABLE VI

RELATIVE IMPORTANCE OF THE EIGHT PARTS OF SPEECH

Part of Speech	Percentage of Total Number of Words in 10,000 Sentences
Nouns	24.2
Adjectives	20.9
Verbs	20.1
Prepositions	11.9
Pronouns	10.7
Adverbs	6.9
Conjunctions	5.2
Interjections	0.0

complete discussion, from a logical point of view, of each topic treated. As a result, verbs are given more space than nouns or adjectives; pronouns are given more attention than nouns, adjectives, or prepositions [**224**: 76–77].

(3) SENTENCE FORMS MOST COMMONLY USED

Stormzand showed also the development in sentence mastery at the various levels of school work as revealed through sentence length. As to the value of this measure, he said: "The long sentence is not, in their [writers whom Stormzand discussed] case, an evidence of sentence mastery but is often an evidence of the lack of it."

The average length of the sentences in the fourth-grade material was approximately one-half the average of the total number of sentences investigated, or eleven words per sentence. This increases regularly throughout the twelve years of school life represented in our material, with the average sentence of the university Freshman nearly equal to the adult average and the university upper-class student slightly exceeding this, with 21.5 words per sentence [**224**: 18].

Importance of distinction between sentences according to form.— Stormzand affirmed that the distinction between simple, compound, and complex sentences is fundamental because a great deal in the matter of clauses depends on the understanding of the differences between complex sentences and the other two types of sentences. Violation of sentence completeness is often caused by lack of clear understanding of principal and dependent clauses. Important rules of punctuation hinge on the correct use of both compound and complex sentences. The study of the frequency of use of the different

TABLE VII*

RANGE OF PERCENTAGES OF SIMPLE, COMPOUND, AND COMPLEX SENTENCES

	Percentage of Simple Sentences	Percentage of Compound Sentences	Percentage of Complex Sentences
University:			
Upper class	22.2	22.9	54.9
Freshmen	30.0	18.2	51.9
High school:			
Seniors	37.6	20.4	42.0
Juniors	38.8	16.8	44.4
Sophomores	44.4	18.0	37.6
Freshmen	38.0	18.0	44.0
Elementary school:			
Grade VIII	48.4	14.4	37.2
Grade VII	46.0	13.0	41.0
Grade VI	59.0	5.5	36.5
Grade IV	48.4	25.0	26.6

* Arranged from author's data.

forms of sentences showed that complex sentences constituted 44.8 per cent of the total; simple sentences, 38.0 per cent; and compound sentences, 17.2 per cent. Table VII (**224**: 23) shows the development from the fourth grade to upper classes in the university in the percentage of simple, compound, and complex sentences used.

A study by Porter (**175**) of English compositions from three schools in Kansas showed that 80 per cent of the pupils in Grade VIII used complex sentences. The ability to recognize a sentence as complete did not show such a high percentage; nor did it reveal so great an increase in development. Only 63 per cent of the sixth-grade pupils and 74 per cent of the eighth-grade pupils recognized complete sentences.

Stormzand's analysis of the complex sentences used showed that all the material from the grades was far below the adult average. This is not strange since the thinking of the young pupil is not complex enough to require complicated forms of expression. The writings of the university students contained many complex sentences, but the use of complex sentences was not interpreted as indicating a mastery of sentence structure, since the complexity was often the complexity born of confused thought or inability to recognize violations of unity and clearness.

Four types of complex sentences constituted more than 90 per cent of the total number of complex sentences used by adults. The percentages of these four types are given in Table VIII (224: 27).

TABLE VIII*

PERCENTAGES OF KINDS OF COMPLEX SENTENCES USED BY ADULTS

	Per Cent
Single adverbial	18.0
Single adjective	19.0
Single noun	16.9
Complex-complex	37.0
Other forms	10.8

* Rearranged from author's data.

The most striking fact about development in the use of complex sentences was seen in the complex-complex type. There was a variation from 5.7 per cent for the fourth-grade pupils to 44.1 per cent for the upper-class university students, with the adult average of 37.0 per cent practically reached at the close of the high-school period. The progression at different school levels was practically continuous.

Significance of Stormzand's study.—The citations from Stormzand's work are indicative of the close analysis he made of the entire range of items usually included in a grammar curriculum. He portrayed, in what the author of this monograph considers the most carefully conducted scientific study made in the language-composition field, the phases of grammar which ought to be placed in the curriculum. He showed that many constructions commonly stressed in the schools play a very insignificant part in the writing and speak-

ing of daily life, while other constructions, commonly neglected in the schools, play a very large part. The terms "functional grammar" and "minimal essentials," often unintelligently bandied about by makers of courses of study, really assumed definite significance for the first time through Stormzand's work, which extended over a period of eight years.

Osburn also studied the grammar actually needed and used by children, obtaining his data from an analysis of compositions written by 173 children in Grades III–VIII, inclusive. He pointed out the futility of attempting to teach phases of grammar which children do not understand and use.

> It is assumed that children should not be expected to study elements of grammar when the mental states which are at the basis of these elements have not yet been experienced by the children [166: 14].

Osburn's study of types of sentences and his study of the introductory words of clauses clearly justified his conclusions:

> Children in every grade use each of the three kinds of sentences [simple, complex, and compound]. The average number of simple sentences is fairly constant in each grade, while there is an increase in the number of compound and complex sentences as one goes into the higher grades. The relatively large number of complex sentences is interesting, but this sum should be considered in relation to [the findings as to the use of clauses]. An inspection of the third-grade data . . . . shows that the complex sentences used in this grade are almost entirely either those involving a subordinate clause introduced by "when" or a substantive clause introduced by "that." There is a gradual increase in the types of complex sentences in the higher grades, but there were no clauses introduced by "since" and only one by "although." Relative clauses beginning with "that" are reasonably frequent from the fifth grade up [166: 3].

Osburn found that young children and untrained adults use few modifiers of subject, predicate, and object.

> The compound subject appears for the first time in Grade V. Single subjects are seven times as frequent as subjects with modifiers and fourteen times as frequent as compound subjects [166: 5].
>
> Most frequently the predicate consists of one word only. Next in point of frequency is the verb with one modifier. The participle with the auxiliary "was" expressing continued action is quite frequent. The same is true of complementary infinitives, verb phrases containing three or more words, predicates involving negatives and those with infinitives expressing purpose. The other forms are comparatively rare [166: 5].

Most of the objects which children use are either single words or single objects, adverbial objects, subject accusatives and datives [166: 6].

In a comparable study Kimmins (124) examined the essays written by 1,570 girls and 1,511 boys from eight to thirteen years of age in elementary schools in London. To assure free and unstudied composition, the children were directed to write as much as possible in fifteen minutes about the World War, then at its height.

The percentage of unrelated simple sentences used by the girls eight years of age was 31.4; by the boys eight years of age, 33.9; the range in percentage of simple sentences for the girls was from 22.5 to 46.2; for the boys, from 22.7 to 44.3. The children thirteen years old, both boys and girls, wrote as simple sentences only 5.2 per cent of the total number of sentences.

The difference between the boys and the girls in the use of complex sentences was more marked; the complex sentences used by the eight-year-old girls averaged 11.2 per cent of the total; by the eight-year-old boys, 16.7 per cent. The thirteen-year-old girls increased the use of complex sentences to 54.6 per cent; the thirteen-year-old boys, to 41.2 per cent. Rae and Pressey (184) found that students in the "honor" sections of college Freshman English used complex sentences far more frequently than did students who had been placed in "zero" sections.

An interesting finding in Kimmins' study was that the eight-year-old girls wrote sentences based on intimate personal matters to the extent of 16.7 per cent; the eight-year-old boys, to the extent of only 2.1 per cent. The thirteen-year-old girls as compared with the eight-year-old girls were relatively much less interested in writing about personal matters, the percentage having dropped to 4.6; the percentage of thirteen-year-old boys writing about personal matters was 1.8.

For curriculum-making the conclusion from the foregoing studies is clear: as children pass through school, their use of simple sentences rapidly decreases; the girls make much more uniform and rapid progress, with corresponding complementary progress in the use of complex sentences. Kimmins concluded that personal feelings and reflection are intimately associated with the use of complex sentences.

Kimmins' work should be supplemented by another line of investigation. At what age, between the ages of eight and thirteen, should direct instruction in complex sentences begin? Certainly not at eight years and quite obviously not at thirteen because children of the latter age write almost 40 per cent of their sentences in complex form. Should instruction in complex sentences be given to all at the same time? The extent to which instruction in any language detail may safely go beyond the normal usage level of the children with relation to that detail is another issue as yet largely untouched. Stormzand had this in mind:

> The knack of adding a thought to the main sentence idea is probably an achievement acquired by pupils at about the sixth grade. The significant fact about the matter is that there should then be such a generous use of the non-restrictive clause. It is easy to understand that this element is then employed to take up a large part of the "run-on" sentence structure. The collection and analysis of further material for the purpose will, no doubt, reveal some interesting traits in the development of sentence control [**224**: 51–52].

The sentence structure used by eighth-grade pupils.—Wiswall (**261**) attempted to show the effect of topic assignments on sentence structure. Compositions of two hundred eighth-grade pupils were used in the study; each pupil prepared four compositions—a reproduction, a narration, a simple exposition, and an elementary form of argumentation. The eight hundred compositions were analyzed to determine the use made of (1) different kinds of sentences, (2) independent clauses, (3) connectives in independent clauses, (4) dependent clauses, (5) connectives in dependent clauses, and (6) "comma-splice sentences" and non-sentences.

Wiswall's findings agree with those of Stormzand with regard to the use of complex sentences. The most important fact revealed is the high percentage of complex sentences, the complexity often being due to confusion of thought.

> There are two significant factors, namely, the need of developing in the pupil the ability to handle the dependent clause more skilfully and the need of developing the power to construct finely wrought simple sentences. . . . . Not until the pupil secures better clause control will he be able to construct clear, unified complex sentences [**261**: 443].

Wiswall pointed out the fact that training in clear expression is dependent on training in clear, logical thinking. "The teacher will

get good sentence structure from the pupil in proportion as the power to think clearly is developed" (**261**: 445–46).

A study of the use of independent clauses in the four types of compositions showed that the type of topic assignment affects only slightly the kinds of sentence structure used. The use of "and" and "but" was persistent, while "for" and "yet" were used very infrequently. The author pointed out the need of showing the pupils the monotony in the use of one connective and the loose construction resulting therefrom. Pupils should be taught to seek other connectives.

Wiswall's study of dependent clauses revealed greater variation among the four types of compositions in the percentage of sentences having two dependent clauses. No marked influence of topic assignment was found. The connectives used, however, varied according to topic assignments. "Who" was more frequently used in reproduction; "when," in both reproduction and narration; and "because" and "if," in argumentation. Slight use was made of "where," "until," and "although." The "comma-splice" tendency was most common in the themes of reproduction, while the non-sentence was most common in argumentation.

Thorndike and several collaborators (**236**) determined the relative importance of various English constructions found in children's compositions, in the writings of experts, and in other sources.

(4) CURRENT USAGE IN PUNCTUATION

Ruhlen and Pressey (**193**) reported a study of all the punctuation found in one hundred business letters and fifty professional letters; in samplings from one issue each of the *World's Work*, *Scribner's Magazine*, the *Atlantic Monthly*, and the *New Republic;* and in samplings from one copy each of the *New York Times*, the *Ohio State Journal*, the *Columbus Dispatch*, and the *Cincinnati Enquirer*—a grand total of 38,638 words, approximately 12,000 words for each type of material.

In handling the results, the total number of cases of each usage for each of the three types of written work (magazines, newspapers, and letters) was summed, and the results for each group expressed in terms of the number of cases of that usage per 10,000 words. By thus handling the results, it was pos-

sible to make valuable comparisons from one type of reading matter to another [193: 326].

The report showed that the period and the comma carry the burden of punctuation, 87 per cent of all the marks used being either periods or commas. The total number of punctuation marks used per 10,000 words is about the same in magazines, in newspapers, and in letters. Ruhlen and Pressey offered a list of minimum essentials in punctuation. The centering of attention in early instruction on the items of punctuation appearing most frequently in current usage should prove profitable. Their list of minimum essentials is as follows:

Full stops: Use a question mark after a direct question (not after an indirect question). Use an exclamation point after a sentence, exclamation, or interjection to show strong emotion or surprise. At the end of all other sentences use a period. Use a period also after abbreviations and initials.

Pauses within a sentence: Use a comma (1) to set off slightly parenthetical phrases or clauses, (2) to set off clearly introductory words, phrases, or clauses at the beginning of a sentence or obviously added elements at the end, (3) to separate words or phrases in a series, and (4) to separate clauses joined by "and," "but," "for," "as," or any other simple conjunction. The comma is also used (5) to separate the parts of a date or an address, (6) to introduce a short quotation, and (7) after the complimentary close of a letter.

Use a semicolon (1) between clauses of a compound sentence that are not joined by a conjunction and (2) to make prominent a division within a sentence when the parts separated are very long, or have commas within themselves.

Use a colon (1) after words, phrases, or sentences serving as a formal introduction to something that follows, as a list or a long quotation. Use the colon also (2) after the salutation in a letter and (3) between the hours and minutes in a statement of time.

Use a dash to indicate a marked break in the progress of thought in a sentence, as when an explanatory element is obviously inserted. The parenthesis may also be used for this last purpose.

Special marks: Use the apostrophe (1) to indicate the omission of a letter or letters in a word and (2) to indicate the possessive case. However, possessive personal pronouns (its, his, theirs, yours, ours) do not take the apostrophe.

Use quotation marks (1) to inclose a direct quotation (not an indirect quotation) and (2) to indicate the title of a theme, a short story, a magazine article, a poem, or play. However, italicize the names of books and magazines (italics to be indicated by underlining). Quotation marks may also be used to call attention to technical, foreign, or unusual words or words used with some special (as ironical or humorous) meaning [193: 329–30].

Guiler (86) analyzed 1,731 compositions of pupils in Grades II–IX, inclusive, to determine language needs as indicated by prevalent usages in capitalization, punctuation, and verb forms. Twenty-one different uses for the capital letter were found, the number of different uses ranging from ten in Grade II to twenty-one in Grade VI and above. Of nine different marks of punctuation used by these pupils, the period, the comma, and the question mark were found to be most frequent. Two uses for the period satisfied their needs—after a statement and after an abbreviation. Five uses for the comma appeared in the work of Grade II—to separate the parts of a date or an address, after the complimentary close of a letter, to separate words in a series, to set off introductory ideas or added ideas in a sentence, and to set off parenthetical or inserted expressions. Four uses of the comma were added by the upper grades—after direct address; to set off a direct quotation; to separate clauses joined by "and," "but," "for," "as," etc.; and to set off a subordinate clause followed by a main clause.

(5) SPECIFICS SOUGHT THROUGH PUPILS' ERRORS

Chapter iii of this monograph reviews investigations which have been made concerning children's errors in oral and written English at different grade levels. Obviously, the frequency of various errors has a direct bearing on the relative amount of drill that should be given on different items of instruction. Hence all the studies reviewed in chapter iii, notably those by Charters and Miller (49), Johnson (117), and Stormzand (224), are rightly considered as having special importance for the curriculum. However, it must be borne in mind that lists and classifications and language errors weighted according to frequency and persistence constitute merely the raw materials with which the curriculum-makers have to work. Only when certain language principles, derived mainly from lists of uses and of errors, have been arranged in a fairly systematic form can the curriculum-maker be said to have done his work. The curriculum must consist of what Charters called "derived subjects" and "the connecting tissue" by which the details determined by studies of errors and usage are bound together (47: 204–7). For example, verb forms constitute about 57 per cent of all errors made

by children; redundancy, 13 per cent; pronouns, 12 per cent (p. 72). This suggests that the "derived subjects" (from these errors) need intensive drill, as contrasted with misplaced modifiers, which constitute less than 1 per cent of children's language errors (p. 72).

Two attempts have been made to construct a curriculum of "derived subjects" on the basis of studies of errors, the latest by Norberg (**161**) and the most pretentious by Charters and Miller (**49**). Charters summarized the language principles for a course of study based on the errors made by children in Kansas City, Missouri.

LANGUAGE PRINCIPLES FOR A COURSE OF STUDY BASED ON ERRORS

1. Nouns
   - *a*) Definition
   - *b*) Inflection—(1) number, (2) case [possessive], (3) gender [slight use]
   - *c*) Common and proper
   - *d*) Syntax—(1) subject of a verb, (2) subjective complement, (3) object of verb or preposition, (4) the indirect object (These are chiefly of use as an aid in the understanding of pronouns.)
2. Pronouns
   - *a*) Definition
   - *b*) Personal pronouns (case and person, gender, number)
   - *c*) Compound personal pronouns
   - *d*) Relative pronouns (gender, case)
3. Adjectives
   - *a*) Definition
   - *b*) Demonstrative adjectives
   - *c*) Cardinal and ordinal adjectives
   - *d*) The derivation of proper adjectives
   - *e*) Comparison of adjectives
4. Verbs
   - *a*) Definition
   - *b*) Transitive and intransitive verbs
   - *c*) Person
   - *d*) Number
   - *e*) Tense (particularly present, past, and past perfect)
   - *f*) "Shall" and "will"
   - *g*) "Can" and "may"
   - *h*) Mood (very slight)
   - *i*) Voice
   - *j*) Past participles
   - *k*) Infinitive (very slight)—split infinitive

5. Adverbs
   a) Definition
   b) Comparison
6. Prepositions
   a) Definition
   b) Government of case
7. Conjunctions
   a) Definition
   b) Classification
8. Misplaced modifiers
9. Double negatives
10. Syntactical redundance
11. Spelling—when explainable by reference to grammar—"to," a preposition; "two," an adjective; and "too," an adverb
12. Sentence structure
    a) Definition
    b) How to write it
       Begins with capital letter
       Ends with a period, exclamation mark, or interrogation mark
13. Parsing and analysis
    a) Definition of both
    b) Division of sentence into parts
    c) In general, the parsing will follow the elements outlined in the foregoing outline
    d) The extent to which the parsing will be carried should be determined by the errors of the children [**47**: 205–7]

A recent, carefully conducted search for language specifics was made by Willing, who gave a battery of twenty-nine tests to seventy eighth- and ninth-grade pupils, grouping closely related errors in forty categories. A sample of his conclusions, as presented in "The Error Guide" (**255**: 55–63), is reproduced in Table IX (**255**: 55). This table shows the classification of the errors in one of the forty categories—"omitted capitals."

Obviously six of the twelve items in Table IX need no instructional emphasis, and more than half of the total of 293 items distributed by Willing in the forty categories might similarly be omitted on the ground that the children studied did not make to any appreciable extent the errors indicated. The results of many corroborating studies would produce a fairly accurate determination of specifics for the language curriculum. Willing very appropriately said that

the discovery of such specifics "should result in a reduction of the current preoccupation of teachers and pupils with materials and drill activities of doubtful validity and meager effect, and should thus release time and energy for attention to other matters in written composition which are much more worth while" (**255**: 54).

Criticisms of a curriculum based on studies of errors.—The course of study recommended by Charters based on studies of errors (p. 34)

TABLE IX

NUMBER OF ERRORS PER 1,200 WORDS IN CATEGORY "OMITTED CAPITALS"

Error Classification	Eighth Grade (37 Pupils)	Ninth Grade (33 Pupils)	Both Grades
1. Proper nouns	164	183	347
2. Proper adjectives	8	9	17
3. First word in sentence	58	28	86
4. First word in line of verse	0	0	0
5. First word in quotation	18	15	33
6. Principal words in literary title	52	31	83
7. Personal titles	11	7	18
8. "I" and "O"	0	1	1
9. Personifications	0	0	0
10. Letter salutations	0	0	0
11. Letter complimentary	1	1	2
12. Miscellaneous	0	1	1

included several items not found in a course of study prepared by a committee of California teachers of English:

1. The study of gender, "because of the failure of pronouns to agree."

2. The indirect object, "that children may see that verbs may be followed by two words in the objective."

3. Classes of pronouns.

4. The following classes of adjectives: demonstrative, cardinal numerals, ordinal numerals, proper adjectives.

5. Classes of verbs: transitive, intransitive, copulative.

6. Voice, "because of the use of the past participle in the passive form."

7. The infinitive, to guard against the split infinitive.

8. Parsing. The following direction is given for parsing nouns: "In parsing a noun, its gender, kind, number, case, and syntax must be stated."

The committee sees no sufficient reason for including any of the above requirements in a course of minimum essentials. But the errors listed in the various studies cited by Professor Charters form the basis, in part, of the findings of the committee. . . . . As to parsing, it is the opinion of this committee that it does not promote good usage in the slightest degree.

The only sentence work required in the Kansas City course in grammar is analysis, and this is confined to "sentences involving potential errors." This committee believes the lack of constructive sentence work to be a weak point in this course of study [158: 182].

This committee concluded that "grammar based on errors" as outlined by Charters is faulty in two respects: (1) in failing to stress sentence mastery and (2) in making the method of dealing with matters of usage too complex and too technical. The committee recommended functional grammar rather than "grammar based on errors." The distinction is pointed out in a statement by Cross.

Grammar based on errors catalogues the formal errors and tries to eradicate them. Functional grammar does the same. And then it goes on to direct the child in the methods at his command to construct sentences. . . . . Both are intelligently corrective. The latter is corrective and constructive.[1]

(6) SPECIFICS OF INSTRUCTION IN RHETORIC

All the studies reviewed in the preceding section have been searches for language specifics. Unfortunately a kindred line of research, which attempts to ascertain specific objectives in rhetoric as contrasted with language details, appears to be represented by only one investigator. Johnson considered finished products of acknowledged merit in order to discover the characteristics which determine excellence. He analyzed (1) 150 letters written by women of recognized leadership, (2) modern collections of literary letters, (3) business letters submitted by presidents and managers, and (4) 1,000 letters of young women in their first year of college. Analysis of the letters in Groups 1 and 2 revealed the prevalence of certain characteristics.

It appears that the major characteristics of good *social letters in general* are: courtesy; informality; humor; the expression of opinions, feelings, or attitudes; a tone of cheerfulness, or optimism; a restricted scope of subject matter (i.e., few centers of organization); and clearness. Because of their close association with these major qualities, *restraint* and the *relation of incident* may be added as secondary derived qualities which merit consideration [118: 68].

Johnson listed what he called the "carriers" of the various qualities of excellence named; he did not, however, derive them by a

[1] Allen Cross, "Staples of Grammar and Composition," *Elementary School Journal*, XVIII (December, 1917), 259.

quantitative method and therefore had no record of frequency. The carriers of courtesy are as follows:

1. Give due attention to questions which have been asked.
2. Never fail to express expected congratulations.
3. Never fail to acknowledge obligations. Show a sense of gratitude.
4. Express good wishes.
5. Make inquiry about matters which you know are of first importance and interest to the recipient of the letter.
6. Recount personal details or incidents in the light of what you know of the recipient's interests.
7. Apologize if there is any occasion for it.
8. Express or imply respect, esteem, or affection.
9. Adapt style and subject matter to age and probable interests of the reader (e.g., letters to children).
10. Adapt tone and subject matter to circumstances and occasions [118: 59].

Johnson's analysis of letters which are characterized by humor enables him to say of the letters that:

1. They smile sympathetically at the weaknesses of human nature.
2. They depict absurd situations.
3. They exaggerate—intentionally.
4. They juxtapose apparently unrelated thoughts.
5. They make reference to amusing experiences.
6. They narrate humorous incidents.
7. They indulge in plays upon words [118: 61].

Analysis of the materials in Group 3 (business letters) revealed the presence of eleven characteristics. In Table X (118: 72) the degree of prevalence of each of these characteristics is expressed in the percentage of the number of letters examined.

Need for additional studies.—There is probably no more fruitful field for investigation in the objectives of English instruction than the one in which Johnson has broken ground. What he has done in determining the major characteristics of good letters and the chief carriers of each characteristic ought to be tested and confirmed by other studies. Moreover, all the functional centers of expression as enumerated on page 19 should be subjected to similar analysis by many workers. This way lies the search for particularized objectives in language instruction.

The importance of Johnson's methods of investigation can read-

ily be determined by contrasting the specifics of instruction at which he arrived (p. 38) with the generalities reached by earlier studies (pp. 10–11). To inform a teacher of English that she should teach children to write good personal letters is of little avail. To place

TABLE X

PERCENTAGE OF BUSINESS LETTERS HAVING EACH OF ELEVEN CHARACTERISTICS

	Per Cent		Per Cent
Clearness	100	One purpose	88
Courtesy	68	Good organization	60
The "you" interest	52	Informality	38
Originality of phrase	44	Neatness	78
Directness	72	Formal correctness	90
Brevity	52		

before her reliable specifics of excellence in personal letters, reached by painstaking objective procedures, is of incalculable value. Exactly what elements constitute courtesy? What important details convey humor? Activity analysis that thus reaches beneath the surface and specifically defines the details of instruction is probably the most fruitful field for further experimentation.

(7) CONCLUSION

The need for particularized objectives—"specifics"—of language instruction can best be met by activity analyses and investigations of errors such as the studies reported in this section. First, the socially useful language specifics and the rhetorical minima indispensable for the daily communications of the average man and woman must be discovered; second, the types of expression used naturally and normally by children of advancing ages must be ascertained. Then arises the unsolved problem of properly distributing language specifics among the various grades. A growing conviction prevails among teachers of English that little value lies in drilling pupils on language niceties or rhetorical excellencies that are too far beyond their present stage of intellectual advance and expressional capacities. Moreover, all these problems are complicated by two facts. First, pupils of any one grade or school age are in language maturity and capacity several grades apart (**90**: 443–44); second, the distribution of language specifics in the curriculum according to use and er-

rors inevitably involves fragmentary, scattering, unsystematic procedure unless the "derived subjects" and the "connecting tissue" are adequately determined. *What* to teach is relatively easy; *when*, *where*, and *to whom* various specifics should be taught is very difficult.

2. THE CONTENT OF THE CURRICULUM

The content of the curriculum in English, the only subject at present prescribed in every secondary course of study (**101**: 339), as it has been and as it is today has been investigated in various ways: by the examination of instructional materials in use at different periods, by surveys of courses of study and other documents, and by surveys of existing school practices. Some investigators have utilized all three of these sources of data. Attention turns first to historical practices and second to studies of current curriculums.

a) HISTORICAL PRACTICES

Language instruction in America before 1850.—Lyman investigated language books, commonly called "grammars," compiling a list of 301 such textbooks published in America before 1850. These textbooks were distributed by decades as follows: 1761–70, 1; 1771–80, 5; 1781–90, 9; 1791–1800, 18; 1801–10, 14; 1811–20, 41; 1821–30, 84; 1831–40, 63; 1841–50, 66 (**143**: 80). Analysis of representative books in this list and examination of contemporaneous courses of study, state reports, colony and state laws, contemporaneous educational treatises, and other primary documents led to certain inferences concerning the early trends in the language curriculum. Early vernacular instruction in America began with the study of grammar (**143**: 70–102); composition as such developed as a subsidiary subject in the curriculum (**143**: 149–54). Hence, up to 1850 the language curriculum was dominated almost entirely by grammar. The trends of early vernacular instruction in America centered about grammar; curriculum trends from 1750 forward are suggested by the titles given to successive periods, as follows:

Grammar as an art
1. Latin period, 1750 to 1784
2. Rote period, 1784 to 1823
3. Parsing period, 1823 to 1847 [**143**: 103]

As a result of a somewhat less intensive study of language and composition books published between 1850 and 1920, Lyman indicated the later curriculum trends as follows:

Grammar as a science

1. Analysis period, 1848 to 1873
2. Rhetorical period, 1873 to 1891
3. Incidental study period, 1891 to 1920 [143: 103]

Composition as a school subject did not enter the curriculum to any appreciable extent before 1850 although reformers such as Barnard, Mann, Carter, and Rand had begun to champion that subject during the twenty-five years before 1850.

The list of questions which Barnard sent to the Connecticut teachers (1838–41, inclusive) is indicative of the most advanced thought of the day.

1. Do you classify your pupils in reference to teaching composition?

2. Do you accustom your youngest pupils to write or print words and short sentences on the slate, from your dictation?

3. Do you ask them to print or write something about what they have seen in coming to school, or read in the reading lesson?

4. As a preliminary exercise in composition, do you engage them in familiar talk about something they have seen in their walk, or has happened in or about the school? And when they have got ideas, and can clothe them orally in words, do you allow them as a privilege to write or print the same on the slate or paper?

5. Do you give out a number of words, and then ask your pupils to frame sentences in which those words are used?

6. Do you require your older pupils to keep a journal or give an account of the occurrences of the day, as an exercise in composition?

7. Do you instruct your pupils as to the most approved form of dating, commencing, and closing a letter?

8. Do you require your pupils to write a letter in answer to some supposed inquiries about some matter of fact?

9. Do you request your older pupils to write out what they can recollect of a sermon or lecture they have heard, or of a book they have been reading?

10. At what age do your pupils usually commence writing easy sentences or compositions?

The exceeding reluctance with which authors of treatises on grammar and teachers of this subject came to the realization that constructive written work on the part of pupils ought to accompany every stage of their progress is clearly marked in America before 1850. Priestley as early as 1772 recommends the practice in his preface, but neither his nor contemporary textbooks are constructed with this purpose in mind. Even earlier than Priestley we have seen the Philadelphia Academy and other schools of advanced ideas employing com-

position but not primarily as an adjunct to grammar. But the fact is that the practice was not prevalent in American schools. This is evident not only from the complete absence of suggestions for composition in the earlier grammars but also from frequent testimony [**143**: 149–51].

The language curriculum since 1860.—Carr carried forward the investigation just reported from the year 1860 to the present day. He examined intensively twenty-nine representative language books classified by periods of one or two decades each from 1860 to 1925. The history of the language textbook since 1860 is primarily a history of increasing differentiation and better grading (**39**: 120). In the earlier periods the ten-year-old child and the college Sophomore studied the English language from the same book. A book published in 1864 by T. W. Harvey (*Practical Grammar of the English Language*) maintained that it was suitable "for the use of schools of any grade." About 1905 two-book series began to appear; the three-book series for the junior high school is the most recent development.

It is possible to point out four periods in the evolution of the "junior high school idea" in textbook form. These four periods, with approximate dates, are: (1) period of emphasis on drill for its own sake, 1860–70; (2) period of formalized self-expression, 1870–90; (3) period of separation of grammar from composition, 1890–1910; (4) period of socialized language aims, 1910—— [**39**: 124].

The final period, that of socialized language aims, covers the years of the most rapid development of the junior high school. The attitude of the older textbooks, often antisocial, is fairly represented by a statement on the title-page of *Revised English Grammar* by George and Murphy (1896): "In the private affairs of life, as in political and international questions, he who speaks or writes the best will always gain an ascendancy over his fellow-citizens" (**39**: 126). In contrast, the newer books have many plans for socialized class undertakings, try to arouse in the pupils a respect for the English language, and maintain that expression always functions in the life of a group.

An examination of the contents of one representative textbook for each of the periods showed (1) that drill in formal grammar has not materially diminished although elaborate diagramming has almost disappeared, (2) that letter-writing has increased, and (3) that

written expression, particularly oral composition, has materially gained in emphasis (**39**: 127).

b) CURRENT LANGUAGE CURRICULUMS

The influence of the junior high school on curriculum content.—The influence of the junior high school movement on the nature and content of instructional materials was also investigated by Lyman (**145**), who studied twenty-four language books published from 1920 to 1924. Twelve of the textbooks were designed primarily for the seventh and eighth grades in the elementary school, and twelve were specifically prepared for the same grades in the junior high school. Comparison of the two groups of books was made with reference to ten categories of progressive thought concerning the language curriculum which had been vigorously promulgated by an important national committee.[1]

The amount of emphasis placed on grammar, composition, literature, and study helps, each having subdivisions and all making a total of seventeen items, was calculated in terms of percentages. Certain outstanding facts developed: (1) Approximately one-half of the contents of the twenty-four books was devoted to grammar. The junior high school books, however, showed a marked improvement in that they assigned to grammar 50.1 per cent of the space in the seventh-grade books and 40.4 per cent in the eighth-grade books as contrasted with 57.3 per cent and 56.6 per cent for the corresponding elementary-school books. Naturally, there were wide variations among the books; one junior high school textbook for the seventh grade devoted 73.3 per cent of its contents to grammar; another junior high school textbook for the seventh grade, only 16.3 per cent (**145**: 445–46). (2) Written composition received 21.4 per cent of the space in the junior high school books for the seventh grade and 42.8 per cent in the books for the eighth grade as compared with 24.8 per cent and 31.3 per cent in the corresponding elementary-school textbooks (**145**: 445–46). (3) The major superiority of the junior high

[1] *Reorganization of English in Secondary Schools*, p. 181. Bureau of Education Bulletin No. 2, 1917. This document, prepared by a joint committee of the National Education Association and of the National Council of Teachers of English and very frequently quoted in city and state courses of study since 1917, has been the most influential single document in the field of English during the past decade.

school textbooks was due to the marked increase in the guidance of individual and group activities through various forms of study helps. The seventh-grade textbooks for the junior high school devoted 16.8 per cent of their space to such activities as compared with 8.7 per cent of the space in the elementary-school books; the percentages for the eighth-grade books were 8.0 and 3.9, respectively.

TABLE XI*

NUMBER OF MENTIONS OF PROGRESSIVE TENDENCIES IN ENGLISH INSTRUCTION IN TEXTBOOKS PUBLISHED BETWEEN 1920 AND 1924

MODERN TENDENCIES	TWELVE JUNIOR HIGH SCHOOL TEXTBOOKS		TWELVE ELEMENTARY SCHOOL TEXTBOOKS	
	Seventh Grade	Eighth Grade	Seventh Grade	Eighth Grade
Progressive English emphasis:				
1. Separation of expression and drill	320	.....	189	.....
2. Creation of vital expressional situations	110	254	150	216
3. Using pressure of social group	65	98	20	74
4. Transferring emphasis to other subjects	27	62	16	25
5. Using objective standards	2	.....	9	5
Total	524	414	384	320
Human activities:				
1. Social relationships; intercommunication	9	95	95	96
2. Citizenship activities	14	37	50	31
3. Worthy home and school life	17	15	31	13
4. Leisure, recreations, amusements	26	32	29	10
5. Vocational activities	18	26	1	43
6. Physical and mental efficiency	19	10	3	6
Total	103	215	209	199

* Rearranged from author's data.

The examination was extended by the subjective method of determining the number of "mentions" to ascertain the extent to which the junior high school textbooks were laying stress on five progressive ideas concerning English instruction and the extent to which they were increasing the emphasis in six lines of social activities as suggested by Bobbitt (**19**: 7). The data are presented in Table XI (**145**: 449).

Division of emphasis in functional grammar.—Modern curriculums profess to include English grammar only in so far as it functions directly in sentence mastery or in correct usage. By a careful analysis of four widely used textbooks, Lowrey ascertained that grammar

is about equally divided between these two phases of functional emphasis. The amount of emphasis, however, differed materially in the four books, as indicated by the following percentages of space accorded by the four textbooks to grammar for sentence mastery: 76.8, 47.2, 39.9, and 33.6 (**140**: 39).

Weaver determined the emphasis placed on oral composition in twenty-nine high-school textbooks published between 1903 and 1925 so far as this was indicated by page-space allotments. Books published before 1920 paid such slight attention to oral composition that it may be considered negligible. Seven of the books published since 1920, representing the high point of oral emphasis, allotted the following percentages of their total space to oral composition: 17.40, 16.12, 60.00, 62.66, 22.37, 18.45, 16.69—an average for the seven books of 30.53 per cent (**251**: 51).

Weaver also found that the emphasis of instruction was divided almost equally, so far as page space was indicative, between the content of oral composition and the purely oral side of speaking. The more distinctly social aspects of oral composition as represented by the purposes of expression—"entertainment," "belief," and "action"—were not stressed by the textbooks themselves. In other words, the inference from this portion of Weaver's study is that the rhetoric—the content and presentation—of oral expression was stressed far more than the social objectives of all expression, particularly oral expression (**251**: 61).

Sneed (**217**) reported the relative instructional emphasis placed on various phases of oral composition in eighty four-year high schools in eleven southern states: telling stories and anecdotes, 28.2 per cent; club discussions, 13.3 per cent; conducting a meeting, 11.2 per cent; speech for special occasion, 9.8 per cent; collecting information by verbal inquiry, 8.0 per cent; conversing at social gatherings, 7.0 per cent; conversing with strangers, 5.6 per cent; conversing over a telephone, 3.0 per cent; and scattering, 13.9 per cent.

Surveys of classroom practices.—Several inquiries into actual classroom practices at different periods have attempted to throw light on the content of the language-composition curriculum. In 1902 a committee of the New England Association of Teachers of English (**159**) assembled the facts from one hundred high schools,

presumably all located in the East. This committee found (1) great stress laid on correct form in written work; (2) intensive work in grammar; (3) emphasis on narration and description as literary forms; (4) a rigidly uniform English curriculum universal in Grades I–IX and almost the same rigidity of curriculum in the high school; (5) a universal practice of requiring regularly "long" and "short" compositions, the number required increasing as the pupils advanced in school; and (6) daily themes required in some schools. Obvious in this summary is the influence of Harvard and other eastern colleges on the English courses of the lower schools.

Five years later, in 1907, a second committee of the New England Association of Teachers of English (**168**) made an inquiry to determine whether the English courses had undergone revision after 1902 and, if so, what changes had been made. Information elicited revealed (1) reduced stress on formal rhetoric and increased stress on grammar, written composition, and spelling; (2) no articulation of English work between elementary schools and high schools; and (3) marked increase of attention to oral expression.

The National Council of Teachers of English carried out an extensive curriculum inquiry in 1913. Replies from 307 high schools distributed throughout the country were apparently fairly indicative of the practices of that date. The facts bearing on the language-composition branch of English instruction may be summarized. (1) The number of hours a week allotted to English was as follows: New England states, 3.89; Middle states, 4.15; North Central states, 5+; West, 5+; South, 5+. (2) The time was about equally divided between composition and literature. Most of the schools based a considerable part of their composition work on literature. (3) Sixty per cent of the schools mentioned oral composition, but the work was indefinite and uncertain. (4) Themes were required on an average of one or two each week; they averaged 200 words for Freshmen, 500 words for Seniors. (5) Half of the schools required grammar, either at the beginning of the first year or "a thorough review" at the end of the fourth year. Sixty per cent of the schools gave special attention to spelling. (6) One-fourth of the schools had regular personal conference hours with pupils concerning their written work. (7) Student criticism was limited to class discussions after themes were

read. (8) Very few schools paid much attention to dramatics, but literary clubs were common. (9) Most of the schools reported that they could not secure satisfactory co-operation from other departments in supervising English expression (**105**: 578–88).

Domination of college-entrance requirements.—The outstanding fact is that general uniformity of practice obtained; the high schools of 1913 looked on their function as distinctly college preparatory; they taught almost without exception the "classics" of the college-entrance requirements; the major aim in all English work was the equivalent of "general culture by means of the several disciplines long identified with a college education so far as these could be introduced into an institution for boys and girls from fourteen to eighteen years of age" (**105**: 593). The North Central states showed in 1913 a much greater departure from the traditional practices than did any other section of the country. Generally, all schools of a given locality slavishly followed prescribed syllabuses—for example, the course of study prescribed by the New York Regents or the course of study recommended by a state university.

A somewhat similar study, confined to the limits of one state, was made in 1921 by Hickman (**98**), who surveyed the curriculum practices of seventy high schools in forty-five counties in Indiana. He found (1) formal rhetoric taught in fifty-seven schools; (2) grammar taught in fifty-three schools, usually reported in close association with composition; (3) twenty-six schools giving one period a week to composition through four years, alternating oral and written work by weeks, and twelve schools giving two periods a week to oral and written composition; (4) only eight schools failing to give regular work in oral composition; (5) oral work allocated almost universally to the English department although seven schools divided the responsibility between the history and the English departments; (6) dramatic work becoming universal, thirteen schools requiring the subject for graduation.

The character and content of composition work.—Counts classified in nine divisions the senior high school composition work in a number of cities. Oral composition averaged 21 per cent and written composition, 30 per cent, the emphasis on the latter increasing steadily from 23 per cent in the ninth grade to 37 per cent in the

twelfth grade, compensated by a gradual decrease in emphasis on formal grammar, correct-speech drills, spelling, and the like, as shown in Table XII (**59**: 37). Gilman (**82**) reported increasing emphasis on letter-writing in curriculums and textbooks.

Curriculum offerings in state teachers' colleges.—By comparing the courses offered in seventy-one state teachers' colleges in 1925 with the corresponding curriculum content in 1900, Jewett found that the "subject-matter poverty" of the earlier period had been supplanted by subject-matter courses "broadly academic in character" (**115**: 126). Functional grammar and grammar applied in composition was

TABLE XII

PERCENTAGE OF THE TOTAL ENGLISH COMPOSITION TIME DEVOTED TO EACH OF THE DIFFERENT DIVISIONS OF THE SUBJECT

	Grade IX (Average of Ten Cities)	Grade X (Average of Thirteen Cities)	Grade XI (Average of Twelve Cities)	Grade XII (Average of Ten Cities)	Grand Average
Oral composition	21	21	21	22	21
Correct-speech drills and games	8	7	8	5	7
Written composition	23	29	31	37	30
Technical composition exercises	15	13	17	11	14
Vocabulary-building exercises	6	6	4	5	5
Use of dictionary, encyclopedias, etc.	7	5	4	4	5
Formal grammar	12	10	8	5	9
Spelling	8	8	7	6	7
Other topics	0	1	0	5	2

replacing the predominating formal grammar of 1900, and formal rhetoric was declining in favor of effective expression (**115**: 128–29). Jewett drew the following conclusions concerning the English curriculum.

> The English offerings in the teachers' colleges studied are mainly of the "advanced academic" type with attention focused upon the mastery of material; the offerings are general rather than highly technical in character; they are not highly differentiated for the several levels of teaching; nor are they thoroughly professional in the inclusion of topics tending to adapt scholarship to teaching purposes. In spite of this lack of professional treatment in subject-matter courses, there are few courses in methods of teaching the various divisions of English at the several levels of the teaching service. The tendency in the language courses is toward practical use and away from the memorizing of bodies of rules and principles. . . . . The value of oral English is not realized by all the colleges, and the offerings in this division of English, as in written expression, but to a slightly lesser degree, fail to place major emphasis upon the teacher's everyday uses of oral expression [**115**: 139].

Score card for elementary language textbooks.—Fissher (77) reviewed several attempts to make score cards for analyzing and appraising the contents of textbooks in language. He suggested that investigations had been deficient in that they did not analyze and measure objectively the distribution of subject matter as it pertained to different major topics. This criticism is pertinent to the studies of Carr (39) and Lyman (145) just reviewed. Fissher constructed a score card which enables an examiner to classify the contents of a textbook somewhat more in detail than the earlier analysts did.

Changes in instructional emphasis.—These surveys of materials are indicative of significant changes in the conception and practice of language instruction during recent years. (1) Emphasis on formal grammar is gradually diminishing. (2) Oral expression and written expression are receiving largely increased attention. (3) Individual and group activities are supplanting lesson-learning. (4) Stress in oral and written composition is more and more focused on activities that pertain to the social, civic, and vocational outlooks of the pupils. Much needs to be done (1) in differentiating materials and methods of instruction for pupils of varying capacity, (2) in extending inquiries into the actual "functional centers" of language, and (3) in properly articulating drill in language minima with extended practice in expression, both oral and written.

3. THE ORGANIZATION OF THE CURRICULUM

Studies in another group have undertaken to investigate the organization of representative courses of study, an especially important matter because the English curriculum is made up of many related branches. Two of the most pertinent questions always are: What phases of English instruction are of greatest worth? Where and how shall the various phases be placed, and how shall they be related to one another? Studies in this field are here reviewed in two groups, those dealing with time allotments and those dealing with grade placement and articulation between schools.

a) TIME ALLOTMENTS

Gradually diminishing time devoted to English.—As a result of a survey of curriculum practices in Grades V–IX in fourteen centers, Glass showed that the time allotted to English was progressively re-

duced from an average of 416 minutes a week in the fifth grade to 266 minutes a week in the ninth grade and cited this as evidence that the core subjects were properly receiving gradually diminishing time allotments as the enriched and enlarged curriculums of the intermediate schools were reached.

> The average weekly time allotment to English is 100 minutes less in the seventh year than in the sixth year and 34 minutes more in the seventh year than in the eighth year. The junior high school provides for less total class time for English than the elementary school, but it counterbalances this reduction by . . . . the oral expression and English dramatic work which uniformly characterizes . . . . assembly programs, class meetings, debating clubs, dramatic clubs, etc. [**83**: 36]

Glass also pointed out the wide variation among cities as to the total amount of time allotted to English. The variations were as great as 300 minutes a week in the fifth grade; these variations, however, he properly asserted, were justified because conditions of racial inheritance, social environment, and home influence, which control time allotments to English, vary greatly within different communities in large centers of population. The first obligation of each school is to meet the needs for English training presented by its own pupils.

> The proportional allotments of the school week to English vary from 12.1 to 29.1 in the seventh year, from 12.1 to 32.2 in the eighth year, and from 12.1 to 31.1 in the ninth year. However, a reorganization as experimental and as recent as the junior high school should not be expected within a brief period of fifteen years to determine definite time allotments. The variation, furthermore, is about equal to the variation in the elementary years, where greater standardization of practice might be expected to prevail [**83**: 36].

Distribution of time among branches of English.—The distribution of the time devoted to English among the various branches of the subject appears to be relatively more important than the amount of time devoted to English as compared with the amount of time devoted to other subjects. Table XIII (**83**: 107–8) shows the practices in fourteen large cities as reported by Glass.

The change from disciplinary to social values.—Literature and reading had a high average time allotment, about two-fifths of the total time given to English; composition ranked second; grammar, third; and spelling, fourth.

The general practice, therefore, in the administration of the English course of study indicates a tendency to stress the cultural and the social values of literature appreciation and facility in the use of oral and written expression. The strictly disciplinary values of grammar have lost their predominating influence in the organization of English courses of study for the intermediate grades, where for so many years grammar prevailed as the major unit of in-

TABLE XIII*

NUMBER OF MINUTES A WEEK DEVOTED TO THE BRANCHES OF ENGLISH IN FOURTEEN CITIES

	High	Low	Average
Composition:			
Grade V	165	60	123.9
Grade VI	160	60	105.2
Grade VII	147	38	82.4
Grade VIII	147	38	80.4
Grade IX	174	25	88.9
Grammar:			
Grade V	140	15	63.6
Grade VI	160	15	80.8
Grade VII	140	38	83.1
Grade VIII	126	38	63.3
Grade IX	105	6	49.0
Literature and reading:			
Grade V	240	75	167.9
Grade VI	240	75	164.6
Grade VII	183	60	116.8
Grade VIII	183	60	100.3
Grade IX	183	75	118.4
Spelling:			
Grade V	125	55	87.5
Grade VI	100	50	78.2
Grade VII	75	10	38.9
Grade VIII	60	10	31.3
Grade IX	50	10	26.0

* Rearranged from author's data.

struction. That this change in practice has not become general, however, is evident from the variation in practice shown in Tables XXIII and XXIV.

The shift from disciplinary to social values is progressing, but it has not been completely effected. The conflict of judgment as to fundamental values and objectives still persists in causing confusion in curriculum-making and wide variation in curriculum administration. Certainly it is clear that much is yet to be done in adjusting conflicting points of view. Encouragement can be found, however, in the evaluation which the fourteen centers in their administration of the curriculum give to the four major divisions of the English course of study. The evaluation as determined by the average proportional distribution of time allotments is 40 per cent of the English time to literature and read-

ing, 28 per cent to composition, 17 per cent to grammar, and 15 per cent to spelling [**83**: 116].

Summary.—A fundamental change is occurring in the administration of the English course of study which is due to the same condition that is causing similar changes in other courses of study, namely, the drift from disciplinary to social values in education. In English the effect is evident in the tendencies mentioned: first, to make literature and reading the major division of the English course of study; second, to increase the time allotment to oral and written composition; third and chiefly, to change grammar from an end in itself to a means to an end; and, fourth, to reduce the problem of spelling in the junior high school to a determination of the actual needs of junior high school pupils for spelling [**83**: 119].

Distribution of time between composition and literature.—Counts reported the practices of fifteen cities with regard to the distribution of time between the two major branches of English in the four years of the senior high school. The average percentage for the four years was composition 45, literature 55; for the ninth grade, composition 49, literature 51; for the tenth grade, composition 48, literature 52; for the eleventh grade, composition 44, literature 56; and for the twelfth grade, composition 39, literature 61 (**59**: 33).

Counts thought that this approximately equal emphasis suggests a failure either to define objectives or to organize instruction for the purpose of achieving the objectives defined. It suggests, on the contrary, a compromise between two competing forces for which there could be found no arbiter.

> The unscientific character of the present procedure is recognized by many progressive teachers of English in the high school, and experimentation for the determination of objectives of composition in particular is in progress. . . . . The great need is for the setting up of definite and socially defensible standards in the use of oral and written speech. Individuals could then be provided with the character and amount of instruction necessary to reach these standards [**59**: 34].

Current English practices in the territory of the North Central Association.—Davis (**67**) reported the results of a study to ascertain the practices in the teaching of English in secondary schools in the territory of the North Central Association. Several points of interest were revealed by the data respecting the practices of representative public secondary schools. Seventy-one of the schools required three years of English; thirty-six required four years; twenty

required five years; and twenty-three required six years. Only 64 of the 168 schools had what they designated as "supervised study" in English. Seventy-four of the 168 schools classified pupils in homogeneous groups. Of these seventy-four schools, sixty-nine varied the amount of material given to the different groups; forty-three varied the kinds of material studied; and forty-seven varied the emphasis given to selected topics.

In the seventh and eighth grades language study occupied from 5 per cent to 33.3 per cent of the English time; in the ninth grade, from 25 per cent to 62.7 per cent; in the tenth grade the mode was approximately 33.3 per cent; nearly this same condition held in the eleventh grade, but in the twelfth grade the median lay between 25 per cent and 33.3 per cent. Evidently high schools in the North Central states devote a somewhat larger part of the English time to reading and literature than do the large cities studied by Counts (**59**). Oral composition was allotted time in the seventh and eighth grades in approximately one-third, or possibly one-half, of the schools. In the ninth grade it was given a conspicuous place. About one-half of the schools reported that nearly one-fourth of the English time in the tenth, eleventh, and twelfth grades was given to oral composition.

Time allotments to language in 1914 and 1924.—Holmes (**102**) and Ayer (**10**) made in 1914 and 1924, respectively, two surveys which make possible comparison between the curriculum practices of these dates. Holmes found the average recitation time devoted to English in the elementary schools of fifty cities to be as follows: reading, 26.3 per cent; language, 13.8 per cent; spelling, 7.4 per cent; penmanship, 5.9 per cent. These percentages he compared with allotments of 15.9 per cent to arithmetic, 7.7 per cent to geography, and 5.8 per cent to history. The time per week devoted to language by grades is presented in Table XIV (**102**: 27).

Ayer compared the time allotments to language in Seattle, Washington, with corresponding time allotments in other large cities. Table XV (**10**: 9) presents his findings.

Two subjects had larger time allotments; reading in forty-nine cities had 2,003 minutes a week; arithmetic had 1,451 minutes a week.

Ayer showed that the average number of minutes a week devoted to language in forty-nine cities of more than 100,000 population rose gradually from 130 in the first grade to 215 in the eighth grade. The average amount of time devoted to language per grade was 177 min-

TABLE XIV*

GRADE RANGE IN TIME DEVOTED TO LANGUAGE IN FIFTY CITIES IN 1914

Grade	Average Time Allotment in Minutes per Week	Percentage of Average Total Recitations	Lowest Time Allotment	Highest Time Allotment
I	75	8.6	20	200
II	79	8.7	33	200
III	94	10.3	33	188
IV	106	10.9	40	178
V	116	12.0	40	320
VI	118	12.2	40	180
VII	134	13.7	54	200
VIII	142	14.1	65	200

* Rearranged from author's data.

TABLE XV*

NUMBER OF MINUTES A WEEK ALLOTTED TO LANGUAGE IN SEATTLE AND IN FORTY-NINE LARGE CITIES IN 1924

Grade	Forty-nine Cities	Seattle
I	130	0
II	141	50
III	167	75
IV	176	110
V	187	200
VI	194	225
VII	207	225
VIII	215	225
Total	1,417	1,110

* Rearranged from author's data.

utes, equivalent to 11.9 per cent of the total school time. In these same cities the total amount of time per week allotted to language was 1,212 minutes in 1888, 1,488 minutes in 1904, 1,316 minutes in 1914, and 1,417 minutes in 1924. Miner (**154**: 44) confirmed these findings in his examination of twenty city courses of study.

Armentrout compared the time allotted to language in thirty-

three elementary training schools associated with teachers' colleges with the time allotted in forty-nine cities as reported by Ayer (10). His comparison covering the first six grades is shown in Table XVI (3: 3).

A similar study[1] covering the time allotments to various subjects in Grades I–VI, inclusive, in sixty cities showed the following: average number of minutes a week devoted to language, 984; average percentage of total school time, 11.0; lowest percentage of time in any one city, 6.3; highest percentage of time in any one city, 17.9.

TABLE XVI*

AVERAGE NUMBER OF MINUTES A WEEK ALLOTTED TO LANGUAGE IN THIRTY-THREE ELEMENTARY TRAINING SCHOOLS AND IN FORTY-NINE CITIES

Grade	Thirty-three Elementary Training Schools	Forty-nine Cities
I	124	130
II	129	141
III	127	167
IV	141	176
V	151	187
VI	150	194
Total	822	995

* Rearranged from author's data.

Time allotments to language in North Dakota schools.—Kirk studied the time allotments in Grades I–VI in thirty schools of the first class in North Dakota. His data for language are presented in Table XVII (126: 537). As in the other studies, language was surpassed in time allotment by reading and by arithmetic.

Sears secured data which indicate how the practices of different schools within the same city system may vary with respect to time allotments. Table XVIII (202: 138, 140) shows variations in the practices of thirty schools in Salt Lake City, Utah.

Time allotments to language in rural schools.—Time allotments to language in rural schools were reported by Reinoehl, who surveyed

[1] "Facts on Time Allotments for Subjects in Elementary Schools and Junior High Schools," *Facts on the Public School Curriculum. Research Bulletin of the National Education Association*, I (November, 1923), 328.

forty-four state courses of study (the states omitted being Arkansas, California, Florida, and Rhode Island) distributed as to date of publication between the years 1914 and 1920; thirty-five of the forty-four courses of study were dated 1915, 1916, or 1917. Reading and language were very frequently combined in Grades I–III, inclusive,

TABLE XVII*

TIME ALLOTTED TO LANGUAGE WORK IN NORTH DAKOTA SCHOOLS

Grade	Number of Schools Reporting	Range in Number of Minutes a Week	Median Number of Minutes a Week
I	24	35–175	80
II	26	35–150	75
III	29	40–175	125
IV	28	75–225	100
V	25	100–225	125
VI	27	70–175	100

* Rearranged from author's data.

TABLE XVIII*

MINIMUM, MEDIAN, AND MAXIMUM TIME ALLOTTED TO LANGUAGE IN SCHOOLS IN SALT LAKE CITY

GRADE	NUMBER OF SCHOOLS	NUMBER OF MINUTES A WEEK		
		Lowest	Median	Highest
I	30	20	75	200
II	30	20	75	200
III	29	20	100	175
IV	29	50	125	200
V	28	70	160	250
VI	28	100	177	300
VII	26	145	225	365
VIII	21	150	255	480

* Rearranged from author's data.

while language and spelling were often combined in the same grades. The average number of minutes a week recommended by these courses of study for grammar, composition, and language study was: Grade I, 26; Grade II, 26; Grade III, 33; Grade IV, 38; Grade V, 36; Grade VI, 42; Grade VII, 48; Grade VIII, 36; total, 285 (**188**: 24).

An interesting item in this study is that the forty-four state courses of study devoted 11.2 per cent of their total space to language; this was exceeded only by arithmetic, with 12.6 per cent.

The percentage of space devoted to reading was 9.5; to spelling, 3.8; and to geography, 9.9. To the four branches of English—reading, language, spelling, and handwriting—was assigned 26.9 per cent of the entire page space (**188:** 38). On the basis of page space and percentage of recitation time in model programs assigned to each subject (**188:** 42–43), the leading subjects in forty-four states were in the order of rank: arithmetic, language, reading, geography, history, agriculture, and hygiene, the first five occupying 76.3 per cent of the entire school time.

Time accorded to free oral discussion.—In 1915–17 Moore observed the practices of 127 first-grade classrooms in twelve cities in ten states and reported that 6.7 per cent of the observation time for all classrooms visited was devoted to "free oral expression"; the median was less than five minutes in two hours of class time (**157:** 270). About one-fourth of the pupils participated. The time given to formal language work was twice the time given to free oral expression. The latter consisted largely of drill in the recognition of words and phrases in connection with reading and of a few language games, which are really artificial devices to induce children to utter some phrase or sentence. Moore was convinced that there is a marked tendency toward silence in the primary grades. She testified that the schools which provided best for free oral expression did so by encouraging it in connection with a large number of activities rather than by setting aside special expression periods.

Tendencies in time allotment.—Investigations in this field reveal significant tendencies. (1) The total time allotted to the branches of English is progressively decreased from the first grade through the eighth grade; on the contrary, the time devoted to the language-composition branches remains almost constant through the middle and the upper grades. (2) Language universally ranks next to reading and arithmetic in average total time allotment per grade. (3) In the ninth grade the time allotted to English is divided equally between the two major branches; by the twelfth grade the proportions are literature, two-thirds; language-composition, one-third. (4) Various cities show wide variations in practice. (5) Schools within one city system report an almost incredible variation in time allotments. (6) The peak of language instruction is usually found in

Grades VI and VII, probably because of the emphasis on grammar in these grades. (7) Rural schools are far behind corresponding city schools in amount of time devoted to language.

b) GRADE PLACEMENT AND ARTICULATION BETWEEN SCHOOLS

Variations in grade placement.—In 1918 Smith (**215**) examined one hundred elementary-school courses of study to determine the different technical items in English emphasized and the various grades in which these items were given special attention in the classrooms. Many of the courses outlined no technical work; others listed a very few items; and only fifty-four outlined sufficient work of this character to make possible any classification or grade placement. The general fact was wide variation in practice; language elements recommended for study in the first grade of one course were found in the seventh grade of another. In no instance did an item that was listed five or more times in the fifty-four courses appear each time in the same grade. No course contained all the items listed, and no one item—not even the period at the close of a sentence—appeared in all courses. Often trivial items were listed in a course which omitted important items. One course listed "LL.D." and "Ph.D." but omitted "yr." and "mo." A 1926 investigation by Schlauch (**198**: 81–86) of thirty-two state courses of study revealed a spread of grade placement averaging from four to five years for two hundred technicalities of language.

Such studies, determining the general tendencies of representative courses, are based on the theory that prevailing practice as represented by composite judgment is the best guide in the absence of detailed experimental work. The fact is that prevailing practice, even if it can be ascertained, is an unreliable guide. The false assumption that prevailing practice is the best practice has led to the insidious inbreeding which characterizes courses of study as well as textbooks. Smith recognized the large field for experimental work to determine by exact methods the best location for any given subject matter in the curriculum.

Entries from several of Smith's tables assembled in Table XIX (**215**: 57–63) indicate the nature of his data.

Stratemeyer and Bruner, who examined 925 language-composi-

tion courses, found 2,646 language-composition items in one representative course for Grades I–VI.

But more important than the large number of topics is the repetition of topics in relation to their grade and subject placement. It seems fair to say even at this writing that only in a very small degree, if any, do the topics serve to reinforce each other. Are they then presented according to our present best

TABLE XIX*

TECHNICAL POINTS STRESSED IN FIFTY-FOUR COURSES OF STUDY

Item	Frequency	Lowest Grade	Highest Grade	Median Grade
Punctuation:				
Capital "I"	42	I	IV	II
Period at close of sentence	29	I	II	I
Exclamation point	39	I	VII	III
Apostrophe, possessives	51	I	V	III
Margin	32	I	VII	III
Parts of letter	52	II	V	III
Pronouns:				
Subject forms	27	I	V	III
Object forms	20	I	V	III
General	11	I	VI	III
Order	5	III	III	III
Possessive	2	II	III	.....
Principal parts of irregular verbs:				
Be	29	I	IV	I
Come	27	I	V	III
Do	32	I	V	II
Go	30	I	V	III
See	37	I	IV	II
Set	12	I	V	IV
Write	25	I	VII	III

* Rearranged from author's data.

knowledge of "learning" problems? Although repetition is admittedly an important factor in learning, blind repetition without relationship is wasteful.

The need for a more carefully selected list of teaching materials and teaching activities is evident [225: 166].

Striking evidence of similar divergence of practice with reference to the items of grammar is given in Table XX (83: 161–62), prepared by Glass as a result of a survey of practices in fourteen cities.

Lack of agreement as to minimum essentials.—In 1924 Hudelson inquired of all the junior and senior high school English teachers in one state as to their practices with respect to sixty-four separate accomplishments, all but one of which were emphasized in the printed

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English syllabus for the state. Among the items were matters of spelling, punctuation, language usage, structure of writing, and

TABLE XX

VARIATIONS IN PRACTICE IN THE ADMINISTRATION OF THE UNITS OF TEACHING IN GRAMMAR*

	GRADES									
	V B	V A	VI B	VI A	VII B	VII A	VIII B	VIII A	IX B	IX A
Sentence	5	5	8	5	9	5	5	2	6	6
	315	210	725	669	1,350	880	310	320	615	1,205
	46	43	87	27	43	30	17	19	58	75
Parts of speech	4	4	11	6	8	3	4	3	7	6
	760	736	765	765	1,030	1,700	330	580	205	225
	18	11	98	81	56	92	18	98	65	19
Nouns	2	1	5	4	7	3	5	3	5	5
	15	.....	300	170	485	33	1,170	175	75	300
	23	.....	74	41	31	8	47	40	10	19
Pronouns	1	1	2	4	7	4	5	2	5	6
	.....	.....	120	280	1,280	240	1,100	80	50	145
	.....	.....	3	87	55	15	44	4	12	13
Adjectives	1	1	4	4	5	4	3	3	4	5
	.....	.....	95	60	375	340	120	690	160	75
	.....	.....	11	22	9	36	16	29	6	4
Adverbs	1	.....	4	2	5	5	3	3	5	5
	.....	.....	85	65	375	350	58	457	80	81
	.....	.....	10	1	11	38	9	18	1	4
Prepositional phrases	.....	.....	4	7	5	6	4	2	5	7
	.....	.....	165	190	470	995	240	205	140	207
	.....	.....	8	20	23	49	31	8	13	16
Verbs	1	.....	2	2	4	5	5	5	8	9
	.....	.....	270	310	800	1,580	608	810	265	1,710
	.....	.....	11	8	26	63	81	72	18	67
Clauses	.....	.....	.....	1	2	6	4	7	8	7
	.....	.....	.....	.....	0	1,300	355	975	190	286
	.....	.....	.....	.....	1	79	31	97	30	24
Structures for varying expression	.....	.....	.....	.....	3	2	2	7	8	10
	.....	.....	.....	.....	130	170	58	577	193	320
	.....	.....	.....	.....	57	8	8	50	69	41

* The first figure in each case is the number of centers giving instruction in the unit of teaching; the second figure is the difference in minutes between the highest and the lowest semester time allotments; the third figure is the difference between the highest and the lowest proportional time allotments of the semester to the unit of teaching.

manuscript form. Replies were received from 193 teachers. The ten items which received the highest percentage of votes as being most essential were:

Avoid the use of slang
Right form, "lie"
Right form, "lay"
Be able to express one's sentiments felicitously
Name the parts of speech in any correct sentence
Spell correctly "amendment"
Use correctly the semicolon
Be able to embody any part of speech in a grammatically correct sentence
Right form, "eat"
Right form, "do" [**109**: 40, 49–50]

One item, a "joker," was the correct spelling of "syzygy." It would be enlightening to know why only 45 of the 193 teachers made

TABLE XXI*

DISTRIBUTION OF 190 ENGLISH TEACHERS ON THE BASIS OF THE SCHOOL YEAR IN WHICH THEY WOULD MAKE ONE REQUISITE FOR PROMOTION "AN UNERRING OBSERVATION OF THE RULES FOR USE OF THE HYPHEN"†

School Year	Number of Teachers	School Year	Number of Teachers
16	8	8	35
15	0	7	8
14	1	6	5
13	4	5	3
12	23	4	2
11	25	3	2
10	26	2	0
9	39	1	1

* Rearranged from author's data.

† Eight of the teachers did not consider the ability a requisite for promotion in any grade.

any response to this specific inquiry. One teacher placed the correct spelling of "syzygy" as a requisite for promotion in the seventh year. The same teacher insisted that the ability to spell "vest" should not be required at all.

This study presented diagrams indicating wide disparity of teachers' judgments as to the proper grade in which to place separate items; for example, as indicated in Table XXI (**109**: 43), the distribution of the judgments of 190 English teachers as to the school year in which "an unerring observation of the rules for use of the hyphen" should be one requisite for promotion to the next school year showed that one teacher would place the requirement in the first grade; eight

would place it in the sixteenth grade; and eight would not consider it as a requisite for promotion in any grade.

A committee of the National Council of Teachers of English continuously examined over a period of years (1923–27) representative courses of study to discover what agreement, if any, existed with regard to the minimum essentials, chiefly the "mechanics" of writing and speaking. The results (**38**) indicate that in the courses of study examined in 1923 the placing of items was haphazard. Twenty-one items of language usage as distributed by grades in eight courses of study varied in grade placement from the second to the eighth grade; there was no uniformity in the work of the same grades in different systems nor suitable articulation of language allotments between the elementary schools and the high schools within a single system; no course for any level presupposed accomplishment on any other level; most of the language difficulties were massed in the ninth grade of various courses; when the junior high school was introduced, many of the language details formerly placed in the ninth grade were crowded down into the seventh grade (**38**: 281).

Twenty-four recent courses of study showed the eight following progressive features. The number of courses of study stressing each is indicated. (1) Much emphasis on oral composition with speech work stressing good usage (13 courses of study); (2) definite standards for passing from grade to grade (13 courses of study); (3) definite work in functional grammar, applied to actual language uses (13 courses of study); (4) full work in letter-writing (13 courses of study); (5) reasonable uniformity in form of manuscript (11 courses of study); (6) definite progress from grade to grade in a development of sentence sense (15 courses of study); (7) emphasis on local language uses (14 courses of study); (8) detailed drill on specific essentials for each grade (17 courses of study) (**38**: 288). Only three of the courses examined had all the eight progressive features; the average was a little more than four.

Articulation between curriculums of elementary schools and high schools.—In 1912 a committee of the National Council of Teachers of English, believing that the "transition from the elementary school to the high school is often needlessly difficult," undertook a study of the articulation existing between the courses of the two schools. Two

hundred and seventy-one replies to a questionnaire from different sections of the country revealed a few significant facts about the condition existing at that time. (1) Requirements in the courses of study for elementary schools were "too many, too heavy, and too vague." There seemed to be no minimum essentials set up for the different phases of English. (2) Emphasis was placed on analytical grammar. "Grammar in most schools seems to occupy from half to three-fifths of the school time devoted to English in the last three years of the elementary course." (3) Oral composition received little attention, especially in the middle and eastern states. (4) Overemphasis was given to elements of formal rhetoric, and too little actual practice was given in written composition (**163**: 307–14).

There was almost unanimous agreement that the articulation was faulty. Among those expressing opinions as to the cause of the faulty articulation, there was unanimous agreement that the defects in the curriculum and in the methods of the elementary school caused much of the difficulty; about 60 per cent thought the demands of the high school were not reasonable; and a large majority said that differences in the methods of teaching in the two schools and the failure of each school to find out what the other was doing were largely responsible.

Concluding statements.—Explanation of the wide disparity of grade placement shown by the foregoing evidence may be made in various ways. (1) Language skills, even petty habits such as the use of "lie," are not mastered once and for all by children. If such items are worth teaching at all, repetition in various grades seems appropriate. (2) Mastery of the uses of the comma cannot be attained in one grade; a few uses should be taught in each successive grade. (3) The most important factor in allocating specific language items to any grade is the exact status of the pupils in that grade with respect to those items. Therefore, disparity of grade placement corresponding to disparity of pupil attainments is inevitable in any wisely made course of study. Even if the validity of these statements is conceded, the following facts remain. (1) A multitude of petty language details now included in some curriculums probably ought to be materially diminished. (2) Studies such as those of Stormzand (**224**) should be multiplied until the uses of language which function most prominent-

ly in daily life are determined. (3) These indispensable uses should be systematized in a course of minimal essentials, arranged carefully to supplant the miscellany of language drills now generally used. (4) The items left in the course, reduced to bedrock minimal essentials, should be treated in cycles, but no investigation of appropriate cycles of instruction is available. (5) Every school system should adapt any such program of minimal essentials to its individual needs.

The proper content of language and the time allotments and grade placement of language items are among the most perplexing unsolved problems in this field. In what grade can the average child best approach prepositional phrases, and when can he be expected to master them, that is, understand them, practice them with some hope of fixed habits of accuracy and effectiveness? What knowledge and skill in any of the various elements of language usage may be expected of the average child in any grade and of children of widely differing language backgrounds? Many such specific problems are as yet untouched.

4. MISCELLANEOUS CURRICULUM PROBLEMS

a) VALUE OF ORAL COMPOSITION AS CURRICULUM CONTENT

Clapp reported an extensive experiment in which twenty-three teachers in nineteen Illinois high schools compared the results secured in a semester course devoted to written composition with the results secured in a semester course devoted largely to oral composition. Detailed work for the entire half-year was outlined, and each teacher conducted one Freshman class as a "combination section" and one as a "writing section."

> Briefly, the plan gave two and one-half days each week to composition, for a semester of eighteen weeks, for the combination section. It provided a series of seventeen oral themes and allotted twenty-five and one-half class periods to their delivery before the class; eight of these oral themes were to be worked over after delivery into written themes, which were to be graded but not corrected by the teacher and then corrected by the pupils in class under the teacher's direction. Besides these eight periods spent in class correction of the written themes, it was provided that seven periods, during the semester, should be spent in drill on spelling, punctuation, and grammar. The teachers were . . . . asked to meet every student in private conference upon the oral themes once a fortnight. . . . . The same course was provided for the writing sections,

but in these sections the oral themes were to be replaced by written themes on the same subjects, which were to be corrected by the teacher in the usual way [52: 148].

At stated intervals during the semester the parallel sections wrote test themes; 2,500 pupil products were available to throw light on the question: To what extent does proficiency (or at least practice) in oral composition carry over into written composition in the ninth grade? Still further, the testimony of the co-operating teachers was assembled, and generalizations were made, which may be summarized as follows: (1) Of the twenty-three teachers who completed the program with both sections, twelve reported that the combination sections took less of the instructors' time than did the usual method; six reported that the time was equal; four reported that more time was required; and one did not comment on the time element. (2) Practical agreement prevailed to the effect that the "combination" instruction resulted in marked improvement in fluency and enunciation in speech and in somewhat less improvement in pronunciation and grammar. (3) As to improvement in writing, fifteen of the twenty-three teachers testified that the improvement in the combination sections was greater; seven, that it was equal; and one, that it was less. (4) Measurements of the test themes resulted in the conclusion that the writing of the combination sections was better in thought and in rhetorical and grammatical structure and at least as good in the more mechanical matters of good form.

This early experiment was perforce loosely carried through, and its results were imperfectly measured, but it must be recalled that the co-operative investigation was undertaken in 1913, before the period of more exact measurements, at least in language. No other experiment of similar purpose or scope has been undertaken. In view of the very rapid spread of oral composition since 1910 and in the complete absence of objective studies of extensive instruction in oral composition, the findings of these pioneer experimenters with regard to the comparative merits of oral and written composition as curriculum content may be quoted.

Even in the purely mechanical points—spelling, punctuation, and handwriting—the combination sections are at least no worse than the writing sections, which had written at least twice as much. Indeed, the astonishing fact

appears that many students in the writing sections show positive degeneration in these points of mechanics during the semester, whereas those of the combination sections do not. . . . . Nearly all of the children in all the sections spell pretty well in their first test-exercise; they have learned to spell in the grade schools. Their punctuation, on the whole, is poor in the first test-exercise, though in some schools, notably good. Their handwriting, though stiff and labored, is on the whole legible. But in the later test-exercises, many of the pupils in the writing sections, whose spelling and handwriting had been good at first, have grown careless, so that their last work, Test-Exercises C and D, is distinctly inferior to that in Test-Exercise A. The writing sections have somehow "gone stale." Their composition work seems to have been unable to hold their serious attention in the face of their developing interest in life—their school activities and their home affairs. The fact that this backsliding is not nearly so noticeable in the combination section suggests that the oral exercises have retained the interest of the class; that the children have been able to make the composition work a part of their life [**52**: 151].

b) EVALUATION OF LANGUAGE AND GRAMMAR COURSES

Stratemeyer and Bruner (**225**) undertook to make a score card entitled "Criteria for Evaluating Language and Grammar Courses" covering five major parts: "Recognition of Language Objectives," "How To Teach—Organization of Subject Matter," "Recognition of and Adaptation to Pupil Needs," "Adaptation to Teacher Needs—Suggestion as to Methods," and "Course of Study Itself—Mechanical Make-up." Each of these parts is divided into numerous divisions and subdivisions, all of which are to be rated by the judges using the score card. One hundred and twenty-one representative judges of varied and extensive experience evaluated courses of study which included all the major subjects of the curriculum; each single subject, such as grammar or composition, was appraised by only a few of the judges. However, by experiment the authors found that the judgments of a few judges were approximately as reliable as the judgments of several. They said on this point:

> The comparatively uniform agreement of the composite judgments of the 121 judges would seem to indicate that the ranking of the courses on a scale of relative merit would probably not have been very much changed even if many more judgments had been obtained, although the use of more judges might modify the precise allocation of some of the courses [**225**: 136].

One somewhat astounding generalization at the close of this study leads to skepticism with regard to the entire procedure; the data indicate that in 734 courses of study there were many more

language-composition divisions worthy of being ranked "good" than any other divisions of the curriculum. The courses of study examined yielded the following numbers of courses estimated "good": language, 125; arithmetic, 59; geography, 57; reading, 54; civics, 34; literature, 33; history, 28; elementary science, 30; health, 17; industrial arts, 15 (**225**: 141). It would, of course, be comforting to English teachers if they might think that a high percentage of courses in language conform to criteria of excellence. Of 925 courses in language, 40 were rated "very good" or above, while a much smaller number of courses in other fields were credited with that rank: geography, 8; reading, 8; arithmetic, 7; industrial arts, 7; literature, 6; civics, 5; elementary science, 4; history, 3; health, 1 (**225**: 144–45). The forty language and grammar courses rated "very good" or above showed a relatively large geographical distribution (**225**: 153–54).

c) RELATION BETWEEN CLASS SIZE AND EFFICIENCY OF INSTRUCTION

Stevenson (**222**) calculated the relative efficiency of instruction in large classes and instruction in small classes, using twenty-six pairs of second-grade classes, twenty pairs of fifth-grade classes, and sixteen pairs of seventh-grade classes. Each co-operating teacher taught one small class and one large class, the classes ranging in size from twenty-three to twenty-six pupils and from forty-one to forty-six pupils, respectively. Records were kept for two semesters, the efficiency of instruction being measured by means of standardized tests; factors other than class size were kept uniform.

The outstanding fact was that in language gain in all three grades the large classes surpassed the small classes; 438 second-grade pupils in large classes showed a gain 19.96 per cent greater than the gain made by 438 second-grade pupils in small classes (**222**: 12); the large fifth-grade classes showed a 10.97 per cent greater gain (**222**: 14); the large seventh-grade classes, a 24.92 per cent greater gain (**222**: 17). To these general data there is one exception. Children who were drilled especially in seventh-grade grammar in small classes showed greater improvement. In an earlier study Elliott reached conclusions which in general agree with Stevenson's findings.

> In no instance cited above [composition classes], where we have cases so distributed that we may overlap groups of classes of different sizes, do we find any superiority in the group of small classes or in the smallest classes of a grade [**73**: 54].

Elliott very sensibly defined the issue which calls for extended experimentation: "How small must classes [in language-composition] be so that the teacher can determine the individual needs of each member?" "How many must be in the group before the maximum of social stimulation is reached?" (**73**: 90–91) This issue is especially pertinent for English instruction, in which the belief in individualization of instruction pulls in one direction, and the belief in the social stimuli of class groups pulls in the other.

When Stevenson's pupils were grouped as "bright," "average," and "dull" and their class records studied to determine which level profited most, the small classes were found to have made approximately the same progress as that made by the large classes. The need for differentiated instruction is obvious before the study of varying capacities can have much value. Stevenson carried out another study with similar results, utilizing sixty-seven pairs of classes in four cities in Illinois. He made a pertinent suggestion as to further study.

> Experimentation should also be carried on to determine whether children can be taught more effectively in larger classes when they are homogeneously grouped than when they are taught in heterogeneous classes. The consensus of opinion is that large classes of bright, average, or dull pupils can be taught more effectively than large classes of mixed pupils. This, however, has never been determined experimentally [**221**: 33].

d) LABOR AND COST OF ADMINISTERING THE ENGLISH CURRICULUM

During the years 1909–21 various joint committees of the Modern Language Association and the National Council of Teachers of English investigated the amount of labor involved in administering the English curriculum and the cost. Results were published in 1923 by the final committee (**103**). Data were compiled from the replies of several hundred teachers of English in 123 high schools and 96 colleges. The most important findings were as follows:

1. The average amount of theme-writing required in high school was 380 words a week; in college Freshman English, 630 words a week.

2. High-school teachers can read themes with fair competency at the rate of 1,950 words an hour; college teachers, at the rate of 2,000 words an hour.

3. High-school teachers can effectively spend two hours a day in reading compositions; college teachers, three hours a day.

4. High-school teachers can handle eighty-one pupils efficiently; college teachers, sixty-one students. The average number taught by individual high-school teachers was 128.6; by college teachers, 104.1.

5. Composition-teaching was reputed unduly burdensome by 401 high-school teachers and by 193 college teachers. Fifty-seven high-school teachers and ninety college teachers replied to the question in the negative.

6. Seventy-one high-school teachers and fifty-one college teachers replied "No" to the query: Should teachers of composition teach that subject exclusively? Five high-school teachers and ten college teachers replied "Yes."

7. The unit costs per pupil of English as compared with the unit costs of other subjects were low, particularly in college: High-school costs: English, $7.05; history, $8.03; mathematics, $8.08; Latin, $9.49; physics, $13.71; chemistry, $17.20. College costs: English composition, $5.36; history, $11.12; mathematics, $13.01; chemistry, $19.53; physics, $22.58; Latin, $26.52.

The committee concluded that the duty of instruction in English composition should be defined in terms of pupils instead of in terms of the number of class periods a week (**103**: 36).

5. CONCLUSIONS

The studies reviewed in this chapter seem to warrant the following general conclusions.

1. The objectives of instruction in English are as yet vague, uncertain, and far from agreed upon. English teachers recognize this weakness.

2. The criterion of "social utility" for the various activities composing the English curriculum is assuming marked prominence. The best curriculum researches attempt to ascertain the language needs of practical daily life.

3. The "social utility" emphasis, however, has so far been pretty largely limited by insistence on accuracy of language usage as the chief instructional objective.

4. In spite of researches indicating the limited value of grammar

as formal discipline, drill in grammar is still the predominating language work of Grades VI, VII, and VIII. Happily, studies are turning attention to "functional grammar" as contrasted with classificatory grammar.

5. Careful research should be devoted to discovering the periods of natural language awakening—for example, the time when pupils begin to think in complex relations and are therefore ready to write and to speak in complex sentences. The fact is that language work of various types is probably placed several grades ahead of the pupils' developing maturity.

6. The search for language specifics as made through studies of errors has assembled much data that have little value. The mere frequency of errors is not justification for stressing drill on certain items. The "connecting tissue" of systematic instruction based on errors has not been adequately developed. Moreover, the relative importance of various errors has baffled determination.

7. In rhetorical matters the pioneer researches for the "functional centers" of excellence in different types of writing are perhaps the most hopeful aspect of curriculum research in these branches of English.

8. In elementary schools and high schools time allotments to the branches of English occupy approximately one-fourth of the entire time. This time, however, is being diminished as the curriculum becomes enriched and as the pressure for good English is being extended throughout the school.

9. Confusing disparity exists as to the grade placement of specific items of language work. This will never be obviated. The use of the period may be taught in the first grade; certainly it must be stressed in all grades. However, much work remains to be done to determine the proper cycles of instruction in which items of composition and language ought to be repeated.

CHAPTER III

INVESTIGATIONS IN CORRECT USAGE: MECHANICS OF SPEAKING AND WRITING

A large number of recent investigations in the field of English have attempted to ascertain the types of technical errors made by pupils in speaking and in writing. The expressed purpose was to determine the "common errors" in order to derive the minimum essentials for a core curriculum in language-grammar (**49**: 3). The value of these investigations in this respect has been discussed in the preceding chapter (pp. 33–37). The greatest contributions made by studies of errors, however, seem to be their influence on the character of instruction through the development of a technique for determining errors and the attention they have centered on the necessity of objective data as a basis for selecting the points deserving greatest emphasis in the classroom. This chapter summarizes the investigations in the field of English usage from this point of view under three major headings—investigations in oral English, investigations in written English, and investigations concerning methods and instruments for diagnosing pupil difficulties.

1. ORAL ENGLISH

The specific speech habits with which teachers should concern themselves must be selected in the light of standards of conversational English. Reports of investigations in the field of errors in English have failed in many instances to take into consideration the differences between the habits of spoken language and the habits of written language. Errors in oral English and errors in written English are often tabulated according to the same classification list; as a result, certain important items in both fields are neglected. This summary considers the findings in these two fields separately in order that the distinction between the two phases of English may be more clearly set forth. Investigations in oral English have been grouped under three general headings—studies of the most frequent

errors in children's speech, studies of the most persistent errors in oral English, and studies of the seriousness of errors in oral English.

a) MOST FREQUENT ERRORS IN CHILDREN'S SPEECH

Errors reported by teachers.—The most extensive investigation reported in this field was made by Charters and Miller (**49**) in Kansas City, Missouri, in 1915. Teachers in the elementary schools noted the errors of children in the classroom and on the school premises for a period of one week. The errors were classified by Charters and Miller. A series of similar investigations under the general direction of Charters followed the Kansas City study: by Charters himself (**47**) in Detroit and in Pittsburgh; by Jones (**46**) in Columbia, Missouri; by Richardson (**47**) in Hibbing, Minnesota; and by Fillers (**76**) in Bonham, Texas, all of whom used the classification of errors adopted in the Kansas City study and secured comparable data. A comparison of the results secured in the researches just named is shown in Table XXII (**47**: 204; **46**: 101).

A study of Table XXII reveals striking similarity in the types of errors found to occur most frequently in the six studies. From 49 per cent to 62 per cent of the errors were in verb forms (Items 8, 9, 10, 11, and 12); from 9 per cent to 21 per cent in syntactical redundancy (Item 19); from 10 per cent to 14 per cent in pronouns (Items 1, 2, 3, 4, 5, 6, and 7); from 8 per cent to 14 per cent in double negatives (Item 17); from 1 per cent to 6 per cent in confusion of adjectives and adverbs (Item 15); from 0 per cent to 1 per cent in confusion of preposition and conjunction (Item 18), and from 0 per cent to 1 per cent in misplaced modifiers (Item 16).

The striking similarity in these lists of errors has been interpreted as indicating a "common-error" list. However, the similarity may be due, in part at least, to the fact that the six investigations followed Charters' guide list.

Other studies reported errors in the same general order of frequency. The Connersville study by Wilson (**257**), a smaller but earlier study, the Boise study reported by Meek (**153**) and by Earhart and Small (**72**), the Cincinnati study by Sears and Diebel (**200**), the Indianapolis study by David (**66**), the Port Arthur, Texas, study by Power (**178**), the Lawrence, Massachusetts, study by

Sheridan (211), and the Waukegan study by Thompson (232) followed the same general technique used in the Charters' studies and

TABLE XXII*

PERCENTAGE DISTRIBUTION OF ERRORS IN ORAL ENGLISH IN KANSAS CITY, BONHAM, COLUMBIA, DETROIT, HIBBING, AND PITTSBURGH

	Kansas City	Bonham	Columbia	Detroit	Hibbing	Pittsburgh
1. Subject of the verb not in the nominative case	4	5	3	4	3	3
2. Predicate nominative not in the nominative case	2	.....	1	1	1	2
3. Object of the verb or preposition not in the objective case	1	.....	.....	1	1	1
4. Wrong form of pronoun	2	.....	1	2	3	2
5. First personal pronoun standing first	2	2	2	1	2	2
6. Failure of a pronoun to agree with its antecedent	.....	.....	.....	1	1	1
7. Confusion of demonstrative adjective and personal pronoun	3	3	4	3	2	2
8. Failure of a verb to agree with its subject in number and person	14	8	9	12	9	13
9. Confusion of past and present tenses	2	5	6	12	7	3
10. Confusion of past tense and past participle	24	20	19	14	8	14
11. Wrong tense form	5	2	4	3	5	5
12. Wrong verb	12	21	24	18	20	18
13. Incorrect use of the mood	.....	.....	.....	.....	.....	.....
14. Confusion of comparative and superlative	1	.....	.....	1	1	1
15. Confusion of adjectives and adverbs	4	1	6	2	2	2
16. Misplaced modifiers	.....	.....	.....	.....	1	.....
17. Double negatives	11	14	10	9	8	10
18. Confusion of preposition and conjunction	.....	.....	1	.....	.....	.....
19. Syntactical redundance	10	9	9	15	21	16
20. Wrong part of speech due to similarity of sound	1	.....	.....	1	.....	.....
21. Confusion of prepositions	.....	.....	.....	.....	.....	2
22. Pronunciation and enunciation	.....	.....	.....	.....	.....	3
23. Adverb instead of negative form of verb	.....	.....	.....	.....	2	.....
24. Words omitted	.....	.....	.....	.....	1	.....
25. Miscellaneous	.....	.....	.....	.....	2	.....
Total number of errors	5,883	500	500	11,207	10,190	25,676

* Adapted from authors' data.

showed that the same types of errors were most frequent. The errors in several of these studies have been reported in precise form, however, and are therefore more valuable in locating exact difficul-

ties for remedial instruction than is the list stated in general form in Table XXII.

From Wilson's summary of five studies (Connersville, Boise, Kansas City, Cincinnati, and consolidated schools of Iowa), the seventeen most common errors in oral English have been selected.

1. Ain't, hain't
2. Saw and seen (confusion)
3. Plural subject with singular verb
4. Double negative
5. Have got
6. Come and came (confusion)
7. Git
8. Them and those (confusion)
9. Teach and learn (confusion)
10. Can and may (confusion)
11. Do, did, and done
12. "And" for "to" with infinitive
13. Shall and will
14. Go, went, gone
15. Subject of verb not in nominative case
16. I and my brother
17. Frank and me in nominative case [**257**: 295–96]

The list of twenty-three specific errors which constituted 57 per cent of the Pittsburgh list of 25,676 errors included nine not found in the foregoing list.

1. "Don't" for "doesn't"
2. This here
3. John, he went
4. That there
5. It was (is, ain't) me.
6. Why, there was
7. "Lay" for "lie"
8. "Off" for "from"
9. "Give" for "gave" [**47**: 203]

Verb errors held a relatively high place in all these studies. Charters (**46**: 103) named the verbs in which there was the greatest confusion in the use of past tense and perfect participle in speech as shown by the Boise, Detroit, and Kansas City studies. The four verbs "see," "do," "come," and "go" caused 52 per cent of the verb

errors in Boise, 74 per cent in Kansas City, and 81 per cent in Detroit. Wilson's list (**257**: 295) showed these four verbs to be the most frequent causes of verb errors in the five studies he summarized. The same verbs appeared with high frequency in the Pittsburgh list (**47**: 203) and in Sheridan's list (**211**: 666).

The implication from such data is that certain errors appearing frequently—for example, verb errors—furnish items warranting the attention of a learning group, while certain other errors appearing infrequently—for example, confusion of prepositions and conjunctions and misplaced modifiers—furnish items for individual instruction.

Comparison of errors collected by different methods.—All the studies reported thus far followed the procedure of having teachers make note of pupils' mistakes in spoken English. Two studies followed different procedures. Barnes (**47**: 207) collected oral errors of pupils in several different school systems by making note of the errors himself, thus securing uniformity in standard. Barnes, agreeing in general with the findings in the studies of errors collected by teachers, added collective nouns, appositives in nouns, plurals of demonstrative adjectives, and gerunds and omitted negatives and syntactical redundancy.

In a study of errors in oral English made by elementary-school children in the Speyer School, New York City, Randolph (**185**) collected the errors from stenographic reports. He found mistakes in sentence structure most frequent, chiefly incoherent sentences resulting from the misuse of connectives of the "loose and," "because chain," and "irrelevant so" types. None of these was noted by teachers in the studies here reported. This significant fact raises a question as to the thoroughness of the studies in which teachers collect errors in order to determine a "common list," that is, a list of errors commonly made by pupils.

Stormzand said of lists collected by teachers:

> The omission of one or two items from the oral errors is evidently due to the failure to have stenographic reports of oral speech. For instance, it is obvious that children, in talking, confuse dependent and independent clauses, but no such errors were reported by the teachers, who, intent upon errors in the use of parts of speech and hurried by school duties in jotting down the errors,

paid little attention to the longer clauses. Errors due to faulty sentence structure, unless particularly flagrant, are likely to escape the attention until seen in cold print [224:182, 184].

Comparison of errors from different geographical sections.—The interpretation that the similarities in the lists indicate a "common-error" list is not supported by investigations which collected errors by a more accurate technique and by studies made in different geographical sections.

Randolph pointed out the need for local studies to determine the basis for corrective English instruction.

It is extremely unlikely that (whatever their causes) the divergences of these lists are exceptional. The place to find out what to do in corrective English is not in the printed lists of composition books and compiled courses of study and inventories like this and other incomplete ones made by other people of unknown biases. In advance of investigation, no one . . . . "knows what are the common errors" in his own school [185: 336].

Sunne secured through the observations of teachers the language errors made by elementary-school children in six parishes in Louisiana. She analyzed the 3,327 items listed to determine whether the errors Charters found in his studies were common in the South. Her report showed the same general types of errors found by Charters, but the variations in the lists from the different parishes and in the combined list as compared with lists reported in other studies were great enough to lead to the following conclusion.

Language errors of children are of at least two types, (*a*) those peculiar to the community and (*b*) those generally prevalent. Hence it is not practicable to limit language drill to a definite set of rules [226: 250–51].

The distinctive habits of vocabulary and of grammar in the various sections of the country cause one to question the conclusion that a "common-error" list has been or can be determined for all sections of the country.

There are in the various sections of our country distinctive habits of vocabulary and of grammar. Such linguistic practices, the distinctive language habits of separate sections of the English-speaking world, are the so-called geographical dialects of English. It is clearly not the business of the schools in any one of these sections to teach the language habits which constitute the dialect of another section.[1]

[1] Charles Carpenter Fries, *The Teaching of the English Language*, p. 127. New York: Thomas Nelson & Sons, 1927.

b) PERSISTENCE OF ERRORS IN ORAL ENGLISH

In determining the items needing the greatest emphasis in the classroom, teachers must consider both the most frequent errors and the errors most difficult to eradicate. A study of the differences in the lists of common errors at the different grade levels contributes a part of the needed information. However, there is need for more adequate methods of weighting errors, and, naturally, the previous teaching emphasis must be considered in drawing final conclusions as to the actual persistence of errors.

Comparison of errors in lower and upper grades.—Seven studies (**8, 46, 66, 72, 200, 211,** and **232**) determined the percentage of errors of each type by grades. In general, all errors appeared to be about equally common in all grades. Charters, Thompson, and Ashfield reported no important differences in the upper and the lower grades. Some differences in certain specific types of errors were found in the other studies. David reported as follows:

> Eighth-grade pupils make fewer mistakes in the handling of the verb than do the pupils of earlier grades. This is not true with regard to the confusion of perfect participle and past tense. Only seven mistakes are attributed to the seventh grade, while twenty-six mistakes are counted against the eighth [**66**: 155].

Earhart and Small in their report of changes in errors in the different grades said:

> The most disconcerting feature . . . . is disclosed by a consideration of the percentages by grades. . . . . On colloquialisms the record of an increasing percentage of error in the higher grades is due to more exacting standards on the part of upper-grade teachers in noting these errors. The primary grades recorded chiefly the use of "lots" for "many," "mad" for "angry," "learn" for "teach," some provincial perfect-tense forms, and the use of unnecessary introductory words, as "well," "why," "now," "so." The higher grades record a much greater variety of errors, as "in" for "into," "between" for "among," "without" for "unless," "go to" for "intend to," "took and," "went and," "kind of," "what for" instead of "why," "guess" for "think," "can" for "may," use of superlative for comparative degree, "at" as in "where is it at?" [**72**: 34–35]

In passing, it may be said that to call the items in the foregoing paragraph "errors" is silly. The investigator who would so denominate them is, from the point of view of a modern student of language, overstressing minutiae.

Sears and Diebel (200) reported that the vast majority of mistakes were in the use of verbs, but all six grades (Grades III–VIII) shared fairly equally in the errors. Pronouns also held a high place in all six grades but were found to be used incorrectly more frequently in Grade VIII than in the lower grades. Mispronunciations were found to decrease from 14.7 per cent in the third grade to 1.7 per cent in the eighth grade.

Two questions were raised by these investigators.

> Is the only effective work in all our grammar and language teaching being done with mispronounced words? . . . . Is the present teaching of pronouns leading to a more confused state of mind in the eighth-grade child than existed when he was in the third grade and was entirely unconscious of the rules of grammar governing the use of such words? [200: 51]

Can conclusions be drawn concerning these questions from the data presented? The fact that different teachers are sensitive to different types of errors suggests that perhaps the differences reported are largely due to the methods of collecting the information. As the types of errors considered important vary for the different teachers, it is logical to expect the types reported to vary correspondingly. In brief, the errors reported are not necessarily true samples of the errors made.

Analysis of the facts presented in these studies indicates also that the data from the lower grades and the data from the upper grades may not be comparable. The errors in three of these studies were reported under such classifications as "verbs" and "pronouns." The fact that as many, or even more, errors in verbs and pronouns appear in the oral English of older pupils does not warrant the conclusion that the items are identical with the items in the earlier grades. If more errors appear in the upper grades, is this an indication of no improvement? Upper-grade pupils have more ideas to express; they have larger vocabularies for use in expression; and they are undertaking more complex constructions in the expression of their ideas. The larger number of errors may indicate greater effort at intelligent expression. More data are needed before any conclusions can be drawn.

c) SERIOUSNESS OF ERRORS IN ORAL ENGLISH

Investigators have recognized the need for determining the importance of errors by some means other than ranking according to

frequency. Three studies attempted to rank errors according to the seriousness of the errors as determined by consensus of opinion. The value of such findings is, of course, dependent on the expertness of the judges. The findings in the first two studies of this group, therefore, have less value than have the findings in the third study, which is significant because it reported the standards of usage of cultivated people as determined by experts in the field of English.

Most serious errors of school children.—In order to determine the relation between common errors and errors teachers considered the most serious, Charters collected from Pittsburgh teachers the ten errors which each considered most objectionable. The relative frequency of mention by the teachers was compared with the percentage of frequency of the error.

> It was found in the case of forty-one specific items that the correlation between the frequency of mention by teachers as being one of the ten worst errors and frequency of occurrence was 0.63 by the Spearman foot rule. This is fairly high and suggests that, in general, the gravity follows the frequency when measured in this rough way [**47**: 202].

Five errors were in the opinion of these teachers worse than they were frequent: (1) "was" for "were," (2) "learn" for "teach," (3) "that there," (4) double comparatives, and (5) "them there." In seven extreme cases the reverse was true. The teachers regarded the following errors not so bad as they were frequent: (1) "ain't got"; (2) "give" for "gave"; (3) "is" for "are"; (4) misuse of "me," as "It is me"; (5) wrong sequence of pronouns, as in "everyone must do their work"; (6) "come" for "came"; and (7) "will" for "shall."

Wilson (**260**) reported a study "to determine the relative degree of heinousness of each of the twenty most frequent grammatical errors found in the oral English of school children." The judges were fifty teachers, forty college students, fifty high-school pupils, thirteen members of writers' club, and twenty-two business men. The judgments were averaged, and weights were assigned to twenty different errors found to be common in other studies. Wilson used all reported studies in an attempt to secure a typical frequency list for weighting. The data revealed misinterpretation. For example, Wilson used data from Stormzand's table (**224**: 174) showing frequency of grammatical errors, in which "case of pronouns" was ranked 14 in

a list of fourteen errors; "other misuses of pronouns" was ranked 10; etc. The order of frequency was reversed by Wilson's interpretation that "case of pronouns" equaled 14 per cent of the total errors; "other misuses of pronouns," 10 per cent; etc. The five errors in grammar in Stormzand's table constituted 10 per cent of the total instead of 49 per cent of the total, as used by Wilson. Such mistakes cause one to be skeptical of the findings of the study. However, the final list of errors selected for the weighting compared very closely with the summary (257) given on page 74. The errors considered most heinous by the judges were: (1) "have went," (2) "ain't," (3) "couldn't never," (4) "seen" for "saw," (5) "done" for "did," (6) "learn" for "teach," (7) "that there," (8) Frank and "me," (9) "is" for "are," and (10) "them" for "those."

Practices of cultivated people.—Leonard and Moffett studied the "use or non-use by cultivated persons of a large number of expressions usually condemned in English textbooks and classes." One hundred and two expressions were classified by 222 judges as "formally correct or literary English," "informally correct, cultivated English," or "illiterate, popular English." The judges were "members of the Modern Language Association, of the English Council, and of the Speech Council, and business executives, authors, and editors, as widely distributed as possible" (134: 350).

The rankings of the twenty-six linguists were reported in detail. Forty-five of the 102 expressions usually condemned by grammarians and rhetoricians were classed as cultivated English by 75 per cent or more of the linguists. The investigators found that these accepted usages are confirmed in the latest authoritative dictionaries. Since these expressions deserve consideration by teachers of English in determining points which should receive less attention in their corrective work, they are quoted.

Rank	Expression
1.	It *behooves* them to take action at once.
2.	I *had rather* go at once.
3.	He toils *to the end that* he may amass wealth.
4.	This is a man ——— I used to know (omitted relative).
5.	You *had better* stop that foolishness.
6.	*Under* these circumstances I will concede the point.
7.	We *got home* at three o'clock.

Rank Expression

8. He did *not* do *as* well as we expected.
9. *As regards the League*, let me say.
10. None of them *are* here.
11. This was the *reason why* he went home.
12. That will be *all right*, you may be sure.
13. We will *try and* get it.
14. I felt I could walk no *further*.
15. I've absolutely *got* to go.
16. There are some *nice* people here.
17. The members of that family often laughed at *each other*.
18. *Will* you be at the Browns' this evening?
19. The room is *awfully* cold.
20. We *only* had one left.
21. *Who* are you looking for?
22. We can expect the commission *to at least protect our* interests.
23. This book is valueless, that one has more to recommend it.
24. That's a dangerous curve; you'd better go *slow*.
25. It is *me*.
26. *You* had to have property to vote.
27. A treaty was concluded *between* the *four* powers.
28. I have *got* my own opinion on that.
29. My contention has been *proven* many times.
30. *One* rarely likes to do as *he* is told.
31. There *was* a bed, a dresser, and two chairs in the room.
32. Drive *slow* down that hill.
33. I will go, *providing* you keep quiet.
34. *Can* I be excused from this class?
35. What was the reason for *Bennett making* that disturbance?
36. Haven't you *got through* yet?
37. He never works *evenings* or *Sundays*.
38. They invited my friends and *myself*.
39. *Everyone* was here, but *they* all went home early.
40. He went *right* home and told his father.
41. The clock must be *fixed*.
42. The Rock Island *depot* burned down last night.
43. My *folks* sent me a check.
44. I *guess* I'll go to lunch.
45. I *can't seem* to get this problem right [134: 352–54].

One jury passing judgment on these expressions, composed of fifty members of the National Council of Teachers of English, classified all but ten of the foregoing expressions as acceptable. The ten which were not accepted by 75 per cent of this jury are as follows:

Who are you looking for?
This book is valueless, that one has more to recommend it.
It is *me*.
A treaty was concluded *between* the *four* powers.
I have *got* my own opinion on that.
There *was* a bed, a dresser, and two chairs in the room.
Can I be excused from this class?
Haven't you *got through* yet?
They invited my friends and *myself*.
Everyone was here, but *they* all went home early [134: 352–53].

Such researches and tabulations, segregating acceptable idiomatic expressions from errors in grammar, ought to place English teachers on their guard against drill on nonessentials.

2. WRITTEN ENGLISH

Technical errors in written composition, treated in a large number of investigations, are here reviewed under eight major headings: (*a*) technical errors in written compositions of elementary-school pupils, (*b*) technical errors in written compositions of high-school pupils, (*c*) most frequent technical errors in written compositions of college students, (*d*) technical shortcomings in the written English of adults, (*e*) persistence of technical errors in written composition, (*f*) comparison of errors in written English and errors in oral English, (*g*) weighting of errors in written English according to importance, and (*h*) errors in written English and control tests.

a) TECHNICAL ERRORS IN WRITTEN COMPOSITIONS OF ELEMENTARY-SCHOOL PUPILS

The Kansas City study by Charters and Miller analyzed 4,819 pages of uncorrected compositions written by pupils in Grades VI and VII. The errors were tabulated under twenty-seven headings, as shown in Table XXIII (**49**: 18–19). A study of this table reveals the fact that 47 per cent of the errors were mistakes in punctuation. Four types of errors were reported under this classification: (1) "failure to put period at end of statement," (2) "failure to put question mark at end of question," (3) "failure to put apostrophe to denote possession," and (4) failure to punctuate properly sentences containing dependent and independent clauses. Sixteen per cent of the errors were verb errors; 11 per cent, use of wrong part of speech on account of similarity in sound; 6 per cent, noun or pronoun errors;

4 per cent, errors in syntactical redundancy; 2 per cent, errors due to confusion of adjectives and adverbs.

In a somewhat smaller study in Bonham, Texas, Fillers (76) secured approximately the same results.

TABLE XXIII

WORKING LIST OF WRITTEN ERRORS USED BY TABULATORS AND THE NUMBER AND PERCENTAGE OF EACH KIND OF ERROR

Error	Total	Per Cent	Percentage of First Twenty-one Errors
1. Subject of verb not in nominative case	42	0	1
2. Predicate nominative not in nominative case	49	0	1
3. Object of verb or preposition not in objective case	48	0	1
4. Wrong form of noun or pronoun	655	5	16
5. First personal pronoun standing first in a series	25	0	1
6. Disagreement of noun and pronoun in number, person, and gender	162	1	4
7. Confusion of demonstrative adjective and personal pronoun	3	0	0
8. Failure of verb to agree with its subject in number and person	753	6	19
9. Confusion of past and present tenses	474	4	12
10. Confusion of past tense and past participle	188	2	5
11. Wrong tense forms	198	2	5
12. Wrong verb	265	2	7
13. Incorrect use of mood	61	0	2
14. Incorrect comparison of adjectives	12	0	0
15. Confusion of comparatives and superlatives	8	0	0
16. Confusion of adjectives and adverbs	253	2	6
17. Misplaced modifier	225	2	6
18. Double negative	58	0	1
19. Confusion of prepositions and conjunctions	53	0	1
20. Syntactical redundancy	467	4	11
21. Wrong part of speech due to similarity of sound	1,334	11	.....
22. Failure to put period at end of statement	3,600	30	.....
23. Failure to put question mark at end of question	208	2	.....
24. Failure to put apostrophe to denote possession	744	6	.....
25. Omission of subject	313	3	.....
26. Omission of predicate	297	2	.....
27. Confusion of dependent and independent clauses	1,059	9	.....

A continuation of the Kansas City study made by Betz and Marshall dealt with the technical errors of third-grade children in composition. Papers were examined only until no new errors appeared. Since only 112 papers were analyzed, the data as to the relative frequency of the errors are somewhat unreliable. However, the chief purpose was to determine the kinds of mistakes made by the particular group of children, and for that purpose the data are sufficient. Table XXIV (15: 496–99) shows the percentage of errors in punctuation, language, and grammar.

TABLE XXIV*

TECHNICAL ERRORS IN ENGLISH OF THIRD-GRADE PUPILS

Type of Error	Percentage of Total
1. Mistakes in punctuation:	
a) Capital letters	22.0
b) Period	10.0
c) Comma	11.0
d) Interrogation point	0.6
e) Exclamation point	0.1
f) Semicolon	2.0
g) Quotation marks	2.1
h) Apostrophe	6.0
i) Colon	0.6
j) Hyphen	0.6
Total	55.0
2. Language:	
a) Violation of unity	6.0
b) Lack of coherence	4.0
c) Mistakes in paragraphing	1.0
d) Syntactical redundancy	4.0
e) Improprieties	0.5
f) Monotonous sentence structure	0.3
g) Words given wrong position in sentence	0.4
h) Mistakes in English idiom	0.7
i) Mistakes in logic	0.1
Total	17.0
3. Grammar:	
a) Mistakes in verbs	13.0
b) Mistakes in nouns	1.0
c) Lack of agreement of subject and verb	2.0
d) Mistakes in case	2.0
e) Mistakes in antecedents	1.0
f) Double negative	0.7
g) Mistakes in comparison of adjectives	0.3
h) Confusion of parts of speech	1.0
i) Prepositions wrongly used	2.0
j) Mistakes due to likeness of sound	5.0
Total	28.0

* Rearranged from authors' data.

Diebel and Sears analyzed 1,140 written compositions of pupils in Grades III–VIII in Cincinnati to discover the technical errors made. They found that the difficulties were not so numerous in the case of language proper since punctuation, composition form, and carelessness constituted 66 per cent of all the mistakes. Table XXV (**68**: 174) presents the classification of the errors and the percentage of each type.

The list of specific errors which appear as often as ten times each (**68**: 176) indicates a tendency to place too much value on frequency

TABLE XXV*

PERCENTAGE DISTRIBUTION OF ERRORS IN 1,140 COMPOSITIONS OF ELEMENTARY-SCHOOL CHILDREN IN CINCINNATI

Type of Error	Percentage
Composition form	30.1
Punctuation	30.8
Verbs	10.8
Syntactical redundancy	9.5
Carelessness	4.7
Prepositions	4.1
Nouns and pronouns	3.9
Conjunctions	1.8
Adjectives and adverbs	1.7
Illiteracy, colloquialisms, and slang	1.2
Ambiguous expressions	1.0
Negatives	0.2

* Rearranged from authors' data.

as a measure of importance. An error which appears less than ten times may need more attention if other estimates of importance are employed than do many errors that appear more frequently.

Sunne (**226**) made a study of the written work of 8,618 children in seven Louisiana parishes and reported the errors in two main groups: (1) form: punctuation, capitalization, sentence form (25 kinds); (2) syntactical errors (21 kinds of errors in grammar). The most common errors in form in the order of relative frequency were: (1) no period at the end of a sentence, (2) no initial capital, (3) the "and" clause, and (4) wrong capitalization. The order of frequency for the larger groups of syntactical errors was the same as that found in the Charters' studies—verbs, pronouns, adjective-adverb, redundancy, prepositions, and negatives. Sunne learned also that spe-

cific errors vary with localities, indicating the need for each school to determine the specific errors of its pupils in order that corrective work may be effective.

A comparison of the results of the four studies reviewed in this section shows that from 30 to 55 per cent of the errors reported are mistakes in punctuation. Verbs, which hold the highest ranking in frequency when only errors in grammar are considered, drop to a relatively low place in the list when all errors in written composition are considered. The preponderance of verb errors was confirmed by Driggs (**70**), who found in classifying the language errors in 1,304 sixth-grade compositions that verb errors constituted 36 per cent of the total.

Seegers (**206**) found that errors in spelling ranked first in frequency in his study of compositions of pupils in Grades VII and VIII. Punctuation was second, with errors in the use of the question mark, the period, and the comma most common. Errors in grammar held third place; and errors in sentence structure, fourth place. A similar survey (**8**) of the composition ability of 850 pupils in Grades IV–VIII in the schools of Richmond, California, revealed the chief weaknesses in written work: (1) lack of ability to apply rules of punctuation, (2) lack of ability to organize subject matter into paragraphs, and (3) use of many unfinished sentences.

The errors in twenty-five hundred written compositions of pupils in the four upper grades in the elementary schools in six Illinois systems and in two schools in Chicago were analyzed by Thompson. The errors in the order of relative frequency were: (1) verbs, (2) omissions, (3) connectives, (4) incomplete sentences, (5) homonyms, (6) pronouns, (7) prepositions, (8) repetitions, (9) antecedents, (10) double negatives, (11) adjectives for adverbs, (12) inverted constructions, (13) articles, and (14) redundancy (**232**: 84). This order agrees with the findings of other investigators when only syntactical errors are considered. Impressive is the inadequacy of lists of errors in written work which fail to take into account items of major importance in written composition, such as punctuation and sentence structure.

b) TECHNICAL ERRORS IN WRITTEN COMPOSITIONS OF HIGH-SCHOOL PUPILS

Several studies have revealed the types of technical errors found in compositions of high-school pupils. Since four of these studies have used identical categories, it is possible to make comparisons and to obtain a working list of the most frequent types of errors.

Comparison of findings from different high schools.—Johnson (**117**) tabulated the technical errors found in 50,371 words of composition written by 132 high-school Freshmen in Kansas City, Missouri. Lyman (**141**), Stormzand (**224**), and Armstrong (4) followed Johnson's category of errors in making similar tabulations of technical errors. Lyman studied the language errors of 322 Freshmen in four high schools—Bloomington High School, Bloomington, Illinois; New Trier Township High School, Winnetka, Illinois; University High School, University of Chicago; and Vinton High School, Vinton, Iowa. Stormzand studied the errors in 18,223 words of high-school composition from Freeport, Illinois. Armstrong based his study on 1,108 themes of Freshmen and 909 themes of Juniors in the Northeast High School, Kansas City, Missouri.

The classification of errors used in these studies follows:

I. Mistakes in the case of pronouns:
   1. Subject or object of verb in wrong case. *She saw my brother and I.*
   2. Predicate nominative in wrong case. *I do not know whom he is.*
   3. Object of preposition in wrong case. *They called to my friend and I.*
   4. Use of objective for possessive with gerund. *It was all the result of that cat crossing my path.*

II. Other misuses of pronouns:
   5. Disagreement of pronoun and antecedent. *A person can find what they look for.*
   6. "You" used indefinitely. *When you start to high school, you feel important.*
   7. Miscellaneous misuses of the pronoun. *A lady which . . . .* etc.

III. Mistakes in the use of verbs:
   8. Disagreement of verb and subject. *On the bank was some water lilies.*
   9. Change of tense in main clause.
   10. Wrong past tense or past participle. *We had drank.*
   11. Wrong verbs used. *I will lay down.*
   12. Mistakes in mood. *He acted as though he was the king's son.*

IV. Mistakes in the use of adjectives and adverbs:
  13. Use of adjective for adverb. *He spoke respectful.*
  14. Use of "most" for "almost." *I go most every time.*
  15. "Only" misplaced in the sentence. *I only had one lesson to study.*
  16. The use of the double negative. *There wasn't hardly room for me.*
  17. Miscellaneous misuses of adjectives and adverbs. *It was a very healthy food.*

V. Mistakes in the use of prepositions and conjunctions:
  18. Use of wrong or superfluous preposition. *He got off of the car.*
  19. Use of wrong conjunction. *The reason was because* . . . . etc.
  20. Misuse of "like." *It looks like he wasn't coming.*

VI. Ungrammatical sentence structure:
  21. Incomplete sentence.
  22. Failure to make new sentence for new thought.
  23. Miscellaneous mistakes in sentence structure.

VII. Failure to express clear meaning:
  24. Ambiguity due to indefinite pronominal reference. *He had to eat olives with the Smith girls although he didn't like them.*
  25. Awkward, "wordy," or complicated phrasing.
  26. Other cases of failure to express clear meaning. *Her mother cooked a dozen eggs and twice as much bacon.*

VIII. Mistakes in punctuation:
  27. No period.
  28. Members of series not separated.
  29. Independent clauses of compound sentences not separated.
  30. No punctuation after introductory expression. *Well how are you?*
  31. Name of city and state written without punctuation. *Kansas City Missouri.*
  32. Miscellaneous mistakes in punctuation.

IX. Mistakes in the use of the apostrophe:
  33. Failure to distinguish between "it's" (it is) and "its" (possessive). *The bird will not do it's best singing if its a cloudy day.*
  34. Wrong form of possessive nouns. *There was a sale of ladie's dresses.*
  35. "O'clock" written without an apostrophe.
  36. Miscellaneous misuses of the apostrophe. *I dont know.*

X. Mistakes in capitalization:
  37. Failure to use capital letter.
  38. Improper use of capital letter.

XI. Careless omission or repetition:
  39. Omission of word or phrase.
  40. Omission of letter or syllable.
  41. Repetition of syllables, words, or phrases.

XII. Mistakes in spelling:
  42. Compound words incorrectly written.
  43. Misspelling of "to," "two," and "too."
  44. Misspelling of "their" and "there."
  45. Other misspelled words.

XIII. Misuse of quotation marks.

XIV. Miscellaneous errors [**117**: 7–9].

The technical errors most common in the writing of high-school pupils are revealed in Table XXVI (**117**: 11, **141**: 91–92, **224**: 173–74, **4**: 14), which is derived from the four studies referred to. Errors in punctuation ranked first in frequency in the Stormzand study and in all four of the schools represented in the Lyman study, while they ranked second in the Johnson study and third in the Armstrong study. Approximately 44 per cent of all the errors in the Stormzand study, 33 per cent of all the errors in the Lyman study, and 10 per cent of all the errors in the Johnson study were of this type. Further analysis of the data shows that in all three studies the chief errors in punctuation were (1) miscellaneous errors, (2) independent

TABLE XXVI*

RANK OF TECHNICAL ERRORS IN WRITTEN COMPOSITION ACCORDING TO FREQUENCY IN FOUR INVESTIGATIONS

ERROR GROUP	KANSAS CITY (JOHNSON)—GRADE IX	FOUR HIGH SCHOOLS (LYMAN)—GRADE IX	FREEPORT (STORMZAND)					KANSAS CITY (ARMSTRONG)		
			GRADE IX	GRADE X	GRADE XI	GRADE XII	GRADES IX–XII	GRADE IX	GRADE XI	GRADES IX AND XI
I	14	14	12.5	14	14	12.5	14	14	14	14
II	7	9	12.5	11	9	8.5	11	13	10	12
III	8	8	6	9	7	6	6	4	5	4
IV	10	12	11	12	13	12.5	12	9	11	10
V	11	11	10	10	7	8.5	10	11	12	11
VI	4	3	7	7	7	11	7	2	3	2
VII	12	5	3	4	3	2	3	7	7	8
VIII	2	1	1	1	1	1	1	3	2	3
IX	6	10	8.5	6	10.5	8.5	8	10	9	9
X	5	7	5	2.5	5	4	4	5	8	6
XI	3	4	4	5	4	5	5	6	4	5
XII	1	2	2	2.5	2	3	2	1	1	1
XIII	13	13	14	13	12	14	13	12	13	13
XIV	9	6	8.5	8	10.5	8.5	9	8	6	7

* Rearranged from authors' data.

clauses of compound sentences not separated, (3) members of series not separated, and (4) no period.

Mistakes in spelling ranked first in frequency in the Johnson and the Armstrong studies and second in the Lyman and the Stormzand studies. Thirty-one per cent of the errors in the Johnson study, 19 per cent of the errors in the Armstrong study, 16 per cent of the errors in the Lyman study, and 15 per cent of the errors in the Stormzand study were mistakes in spelling.

Four other types of errors appearing frequently in these studies were, in the order of frequency, careless omissions or repetitions, ungrammatical sentence structure, mistakes in capitalization, and failure to express clear meaning (frequent in the Lyman and the Stormzand studies but infrequent in the Armstrong and the Johnson studies).

Anderson (2) made an analysis of compositions of pupils in the University High School, University of Chicago, finding 5,447 errors distributed into twenty major categories. Anderson's findings agreed with those here reported. Approximately 73 per cent of the errors were errors belonging in Category VIII—errors in punctuation; 63.6 per cent were errors in the use of the comma. The next most frequent type of errors was ungrammatical sentence structure—Category VI; 7.5 per cent of the errors were in this class. The other errors were widely scattered.

A committee of the Illinois Association of Teachers of English (44) reported a study of the errors found in 1,115 pages of compositions of Freshmen and in 828 pages of compositions of Seniors in four high schools in Illinois. They reported findings which agreed with those of Lyman, Stormzand, and Armstrong. Errors in punctuation were most frequent in both groups; 37.2 per cent of the errors made by the Freshmen and 41.7 per cent of the errors made by the Seniors were errors in punctuation. Errors in spelling ranked second in frequency; 25 per cent of the errors made by the Freshmen and 26 per cent of the errors made by the Seniors were errors in spelling. The list of errors causing the most trouble in these schools was small. Eight types of errors caused 75.2 per cent of all the difficulties encountered by the Seniors, while seven types caused 77.2 per cent of all the difficulties encountered by the Freshmen.

A survey of the technical difficulties in English encountered by Senior commercial students was reported by McCarty (146). Errors in five different types of work done by the students were tabulated. Sentence structure ranked first in frequency, followed in order by punctuation (chiefly the comma), capitalization, paragraphing, spelling, quotation marks, choice of words, use of hyphen, confusion of tense forms of common verbs, and agreement of verb with its subject. Twenty-three items appeared in the list, the items being similar to those in lists compiled by other investigators.

Studies of certain specific types of errors.—Pressey reported a study of errors in capitalization found in 936 papers written by pupils in Grades VII–XII in a city in Indiana and by pupils in Grades IX–XII in a city in Ohio. A summary of the results of the study follows.

> The outstanding fact is the great frequency of mistakes in capitals at the beginning of a sentence; 43 per cent of all mistakes are of this type. Of the 43 per cent, 25 appeared as failure to capitalize at the beginning of the sentence and 18 as capitalization of words, phrases, or clauses as if sentences. It is to be emphasized that these mistakes are not only very frequent but very important. They are perhaps to be charged to lack of sentence sense rather than lack of familiarity with rules for capitalization. But whatever the cause, these errors need attention [180: 730].

A statistical study of children's errors in sentence structure was made by Pressey, who analyzed 980 papers (182,985 words) written by pupils in Grades VII–XII. The importance of the study is explained by the author as follows:

> It seems a fair contention that an error is important in proportion as it makes it difficult for the reader to obtain the writer's meaning. From this point of view many errors in capitalization and in grammar are minor: if a child fails to capitalize in referring to "the Great West" or writes "he don't" for "he doesn't," he may distract the reader by offending the reader's sense for the proprieties, but he does not obscure meaning. Mistakes in sentence structure do often make the meaning obscure. Mistakes in sentence structure are, then, even more important than their frequency would indicate. They are also very important because difficulties in sentence structure frequently lead to errors in punctuation and capitalization [181: 535].

The comparative frequency of various types of errors in sentence structure found in this study is shown in Table XXVII (181: 531). This table shows that, in general, errors in sentence structure are of

a few frequently recurring types. Two general types of errors—failure to make proper sentence division (as shown in the use of stringy sentences and fragments of sentences) and omission of words or phrases—made up approximately one-half of all the errors. Two other types of errors—faulty reference of pronouns and redundancy—were also common, constituting approximately 20 per cent of all the errors in sentence structure. These four types of errors made up approximately 70 per cent of the total.

TABLE XXVII*

FREQUENCY OF ERRORS IN SENTENCE STRUCTURE

Error	Per Cent
Fragments used as sentences	11
Stringy sentences	33
Choppy sentences	4
Lack of parallel construction	5
Pronoun with no antecedent	11
Pronoun not near antecedent	7
Change in tense	7
Redundancy and repetition	5
Omitted word or phrase	5
Generally incoherent sentence	5
Miscellaneous	7

* Rearranged from author's data.

Relation between fluency, general excellence, and accuracy.—In order to secure data for determining the relation between fluency of expression and mechanical accuracy in the composition work of high-school Freshmen, Lyman (**141**) compared the mechanical accuracy of ten of the longest themes, ten of the shortest themes, and ten of the themes of average length in each of the four schools cooperating in his study of errors, computing the ratio of the number of errors to the number of words.

There appears to be a positive correlation between fluency and accuracy. Those pupils who write fluently are freest from mechanical errors. This statement needs to be qualified to a certain extent; some pupils who appear to write as they talk, in an endless string of run-on constructions, whose chief means of coherence consists of "and's" and "but's" and "so's," accompany extreme fluency with a marked increase of inaccuracy [**141**: 99].

As to the relation between general excellence and accuracy, Lyman found that "pupils whose subject matter and composition are good to excellent write with relative freedom from mechanical

errors. Pupils whose work is mediocre in subject matter and composition are also deficient in language mechanics" (141: 99).

General excellence in substance and rhetorical form apparently is accompanied by a reasonable command of the mechanics of writing [141: 99].

Errors in the unstudied writing of high-school pupils.—The situation which confronts the pupil in writing a school theme differs greatly from the situation which confronts the pupil in writing non-school compositions, such as letters to friends. The best measure of a child's expressional habits is obtained when he is thinking about the substance of his expression. Ashbaugh attempted to ascertain the level of English usage which pupils reveal when the school and the teacher are "out," when the thought is uppermost, and when the recipient of the letter is another child. He examined letters sent through the mails by junior and senior high school pupils to their friends. The results are summarized in the following paragraph.

Poor sentence structure, in which are included run-on sentences, double negatives, meaning not clear, and so forth, is a rather constant quantity, being found in, roughly, 6 per cent of all the sentences in each of the grades. Grammatical errors, which included the use of wrong mood, tense, case, and number, and lack of agreement between subject and verb, occurred on the average of one time per letter. The incorrect use of tenses, which includes both failure to use proper tense as compared with the rest of the letter and the wrong form of principal part with the auxiliary or the perfect participle without an auxiliary, accounted for 45 per cent of all of the grammatical errors noted. The lack of agreement of subject and verb accounted for 24 per cent of the grammatical errors [7: 309–10].

Errors in punctuation and capitalization were frequent. The following summary of Ashbaugh's findings indicates the types of such errors found and the percentages of omission.

1. Comma in parenthetical words, phrases, and clauses omitted in 87 per cent of the occasions in Grade VII, in 68 per cent in Grade IX, and in 71 per cent in Grade XII.

2. Comma in heading, address, etc., omitted in 58 per cent of the occasions in Grade VII, in 51 per cent in Grade IX, and in 45 per cent in Grade XII.

3. Apostrophe of possession omitted in 63 per cent of the occasions in Grade VII, in 50 per cent in Grade IX, and in 37 per cent in Grade XII.

4. Question not followed by question mark in 34 per cent of the occasions in Grade VII, in 30 per cent in Grade IX, and in 26 per cent in Grade XII.

5. Comma in series omitted in 22 per cent of the occasions in Grade VII, in 19 per cent in Grade IX, and in 11 per cent in Grade XII.

6. Declarative sentence not closed with a period in 23 per cent of the occasions in Grade VII, in 15 per cent in Grade IX, and in 16 per cent in Grade XII.

7. Capitals omitted in 7.7 per cent of the occasions in Grade VII, in 4.8 per cent in Grade IX, and in 4.9 per cent in Grade XII (**7**: 310–11).

c) MOST FREQUENT TECHNICAL ERRORS IN WRITTEN COMPOSITIONS OF COLLEGE STUDENTS

Several studies have revealed the types of technical errors most frequent in the written compositions of college students. Johnson (**117**) reported the results of a study of compositions of college Freshmen in Kansas City; Potter (**176**) and Parker (**167**) each studied compositions of Freshmen in the University of California; Vaughan (**246**) reported the errors of Freshmen in the West Tennessee State Normal School; Stormzand (**224**) studied the compositions of both Freshmen and upper-class men in the University of Illinois; Seaton (**205**) classified the language errors of Freshmen in the University of Pittsburgh.

Errors in punctuation were most common in five of these studies, constituting 52 per cent of the errors in Stormzand's study, 48.0 per cent in Vaughan's study, 29.5 per cent in Parker's study, 22.3 per cent in Potter's study, and nearly 50 per cent in Seaton's study. Such errors were third in the order of frequency in Johnson's findings although only 12 per cent of all the errors he reported for college Freshmen were of this type. Potter and Vaughan each found more than 70 per cent of the errors in punctuation to be errors in the use of the comma; Stormzand and Johnson both reported "members of series not separated" and "independent clauses of compound sentences not separated" as among the most frequent errors in punctuation.

Errors in sentence structure ranked second in the order of fre-

quency. Since a knowledge of sentence structure is indispensable for an intelligent use of punctuation marks, a high frequency of errors in sentence structure might be expected to accompany a high frequency of errors in punctuation. Potter found 21 per cent of the technical errors to be of this type; Parker reported 19 per cent; and Vaughan, 14 per cent; 32.3 per cent of such errors reported by Potter were due to statements in which clauses were confused in meaning. Vaughan reported "hopelessly involved" sentences, statements containing" "offensive repetitions," and "fragments as sentences" most common. Parker found "two sentences written as one," "incomplete constructions," and illogical and incoherent constructions most common.

Errors in spelling were first in the order of frequency in the Johnson study, second in the study by Stormzand, third in the studies by Potter and Vaughan, and fourth in the study by Parker. Errors in grammar ranked fourth in frequency in the study by Vaughan and fifth in the studies by Potter and Parker. The specific types reported as most frequent are: "disagreement of verb and subject," "confusion of past and present tenses," "wrong part of speech on account of similarity of sound," and "shift of person, number, and tense not only in the sentence but throughout the theme."

Johnson reported a high frequency for mistakes in capitalization. Errors in the use of the capital letter at the beginning of a sentence were most frequent. Stormzand found third in frequency sentences which failed to make the meaning clear. The chief types of errors were "false diction," "awkward, wordy, or complicated phrasing," and "careless substitutions." Both Johnson and Stormzand reported frequent errors due to careless omissions or repetitions.

d) TECHNICAL SHORTCOMINGS IN THE WRITTEN ENGLISH OF ADULTS

Bobbitt (**20**) reported an analysis of a random sampling of 362 letters addressed to the "Voice of the People" in the *Chicago Daily Tribune* to determine the types of errors made in written English by the "literate portion of our population."

> A total of 7,110 errors were found. This is an average of about twenty errors per letter. The average length of the letters is about 285 words. Thus, there is one error for every fourteen words [**20**: 110–11].

Table XXVIII (20: 111) shows the frequency of errors of each general type.

The investigator analyzed the most frequent errors in punctuation to determine the specific ways in which generally accepted modes of punctuation were violated. These were classified as errors "not so much because they are violations of conventional rules but because they interfere with the reader's easy and rapid grasping of the thought of the writer" (20: 112).

TABLE XXVIII

FREQUENCY OF GENERAL TYPES OF ERRORS IN THE FREE WRITTEN ENGLISH OF ADULTS

	Frequency
1. Errors in punctuation	2,796
2. Errors in expression	2,287
3. Errors in capitalization	1,183
4. Errors in abbreviation	192
5. Errors in spelling	191
6. Errors in grammar	157
7. Improper margins	147
8. Errors in writing numbers	81
9. Errors in word-compounding	76
Total	7,110

The ten most frequent errors were:

1. Commas incorrectly omitted with non-restrictive or parenthetical modifiers
2. Incorrect punctuation of an abbreviation
3. Failure to use period to disassociate independent statements
4. Superfluous punctuation
5. Failure properly to disassociate the independent clauses in a long compound sentence
6. Words in series not properly separated by commas
7. Commas not used where needed to set off appositives
8. Commas omitted where restrictive modifiers come between other closely related groups of words
9. Failure to use a question mark after an interrogative sentence
10. Omission of quotation marks with a direct quotation [20: 112]

Errors classified as strictly "grammatical" were infrequent and of a nature not considered serious. Only 157 such items were listed. Of these, approximately 33 per cent were mistakes in the tense of

verbs; 21 per cent were errors in the agreement of verb and subject in number; and 10 per cent were wrong uses of "shall" and "will" and of "should" and "would." Verb errors constituted approximately 65 per cent of the total number of errors in grammatical usage. Bobbitt pointed out the necessary relation between training in mechanics of English and training in definite, clear, logical thinking.

> We feel that these latter matters [those relating to skills in the conventional or mechanical aspects of language] should be attended to in such degree and manner that formal errors would become practically non-existent in the letters of such alert-minded persons as write to the "Voice of the People," and yet we feel that the economical and effective road to this latter goal is primarily attention to the thought and only secondarily, and largely incidentally, to the matters of form [20: 118].

e) PERSISTENCE OF TECHNICAL ERRORS IN WRITTEN COMPOSITION

Before a scientific basis can be established for the directing of emphasis in the teaching of written expression, a knowledge of the errors which persist is necessary. Do the same types of errors appear in different types of compositions? What types of errors persist with the same pupils throughout the term? What types of errors persist in general through the elementary school, through the high school, and through college? Several studies have been made which give information concerning these questions.

Constancy of errors in different forms of compositions.—Johnson secured three compositions—narration, description, and exposition—from each of 132 high-school Freshmen and 66 college Freshmen. He reported as follows:

> One of the very significant facts brought out in the course of this study is that in different themes on different subjects the same group of pupils will produce the same types of errors in relatively the same amounts. This relative constancy of error-types indicates a "vocabulary of error" corresponding to the "vocabulary of words" which the pupils employ in written expression. At every turn of the investigation we face the fact that English error is not a variable, inconstant thing, as those who temperamentally rebel against the standardization of composition work often tell us, but that it is a very constant, tangible thing capable of scientific treatment and study [117: 579].

Persistence of technical errors with the same pupils throughout the term.—A study of the errors which are the hardest to eliminate

through instruction was included in Armstrong's survey (4) of composition work in the Northeast High School, Kansas City, Missouri. Armstrong based his study on 1,108 themes of Freshmen and 909 themes of Juniors, estimating persistence of error as revealed through five compositions for each pupil written at five different periods in the school year. The five most frequent errors of the Freshmen in the order of rank were (1) misspelling, (2) failure to make a new sentence for a new thought, (3) careless omissions and repetitions, (4) miscellaneous errors in punctuation, and (5) miscellaneous errors. The five most persistent errors of the Freshmen in the order of rank were (1) wrong verb form, (2) miscellaneous misuses of adjectives and adverbs, (3) repetition of syllables, words, or phrases, (4) disagreement of subject and predicate, and (5) misspelling. The five most frequent errors of the Juniors in the order of rank were (1) misspelling, (2) careless omissions and miscellaneous errors, (3) miscellaneous errors in punctuation, (4) failure to make a new sentence for a new thought, and (5) improper use of capital letters. The five most persistent errors of the Juniors in the order of rank were (1) miscellaneous misuses of adjectives and adverbs, (2) disagreement of subject and predicate, (3) subject or object of the verb in the wrong case, (4) ambiguity due to indefinite pronominal reference, and (5) use of past tense for past participle.

A comparison of these findings leads to the conclusion that errors in spelling, punctuation, capitalization, and sentence structure are more easily combated than are errors in grammar. This is contrary to the findings of Sunne (**226**) reported on page 99, to the findings of Johnson (**117**) reported on page 95, and to the findings of Stormzand (**224**) reported on page 94. All three of these investigators found errors in form to be more persistent than errors in grammar.

Persistence of errors through the elementary school, the high school, and college.—Diebel and Sears reported as follows:

> Some of the errors increase from the third grade to the eighth, while some decrease. The ideal situation would be one in which the number of errors fell steadily; but this would not take into account the fact that as the child's mind grows he will use more complicated forms of expression. Take the case of conjunctions, for instance. Third-grade children use simple sentences almost ex-

clusively. They do use the conjunction "and," but generally their language would be better if it were omitted; their use of "and" therefore is really misuse, to be classified either as syntactical redundancy or as an error in composition form, viz., failure to divide into sentences, and not as an error in conjunctions. The percentage of error, therefore, and of children making that error is likely to rise instead of to decrease [68: 175].

Sunne learned that the different types of errors in written English persist through the grades.

If the ten form errors that rank highest in the third grade are noted, it is found that nine of these are among the highest ten in every grade. The one exception is the lack of the terminal question mark. In the upper grades omission or misuse of the comma takes the rank position of this type of error. . . . .

Seven of the ten syntactical errors most frequent in the third grade continue among the ten highest in all the grades. Misuse of pronouns and redundancy become more frequent in the upper grades than wrong use of adjectives, past participle for past tense, and incorrect sequence [226: 250].

Sunne concluded that syntactical errors may be more readily combated than errors in form. The reason suggested for the greater persistence of errors in form is the high correlation between form and clear thinking.

Potter and Touton determined grade progress in the ability of Los Angeles pupils in Grades VII–XII, inclusive, to detect errors in a composition. They considered the papers of twenty-four hundred pupils, two hundred in each half-grade, with respect to sixty-four types of errors grouped in six categories, as represented in Table XXIX (177: 18–19).

The general conclusions which the authors considered warranted by the findings are:

1. Little progress in the elimination of language errors is made throughout the secondary school.

2. Few language errors are largely eliminated by the secondary school.

3. The greatest progress in the elimination of language errors is attained in Grade IX A.

4. The greatest number of acceptable corrections is shown in the grammar group of errors.

5. The smallest number of acceptable corrections is shown by the paragraphing group of errors [177: 2].

The overlapping of abilities by grades is, of course, not represented in Table XXIX, but the authors realized the very great significance of this fact.

The measures of central tendency and variability based upon the distribution of all the Form A scores for the several half-grades also throw considerable light upon the language equipment of pupils about to graduate from the senior high school. The highest 10 per cent of the pupils in Grade VIII equal or excel in this phase of English the lowest 10 per cent of the pupils in Grade XII A.

TABLE XXIX*†

MEAN SCORES BY HALF-GRADES IN PERCENTAGES OF ACCEPTABLE CORRECTIONS IN SIX ERROR GROUPS BASED ON ERRORS CORRECTED IN FORM A TEST PAPERS BY 2,400 JUNIOR-SENIOR HIGH-SCHOOL PUPILS DISTRIBUTED INTO NORMAL GROUPS OF 200 IN EACH HALF-GRADE

ERROR GROUP	GRADES											
	VII B	VII A	VIII B	VIII A	IX B	IX A	X B	X A	XI B	XI A	XII B	XII A
Grammar....	26	33	32	38	39	52	55	60	62	64	65	68
Miscellaneous	18	24	24	29	32	40	45	50	48	60	51	56
Punctuation..	13	15	16	20	25	30	35	39	43	45	45	49
Sentence structure...	11	13	14	18	21	30	33	40	43	46	48	53
Diction.....	10	12	11	15	15	23	24	30	28	32	33	33
Paragraph organization.	4	8	7	10	14	19	22	22	24	26	27	31
Total....	16	21	20	25	28	36	40	45	47	50	51	55

* Rearranged from authors' data.

† This table should be read as follows: The mean achievement in terms of percentage of acceptable corrections of the errors in the grammar group in Grade VII B is 26; in Grade VII A, 33; etc.

Ten per cent of the Senior A pupils graduate with a language equipment equal or inferior to the average of X B pupils. Approximately 25 per cent of the XII A pupils fail to attain the average score of X A pupils, which indicates that 25 per cent of the Senior A's are two years retarded [177: 21].

In a study of compositions written by pupils in Detroit, Courtis (60) noted the mistakes in punctuation, spelling, and syntax per one hundred words at the different grade levels. He found the most rapid improvement in punctuation, accompanied by gradual improvement in spelling and in syntax. The greatest improvement was found in the high-school grades, where corrective work is incidental. Jordan (119) reported similar results from a study of high-school compositions.

Pressey (181) found an apparent lack of improvement in mastery of sentence structure from the seventh grade to the twelfth. His data show "an increase, from the lower to the higher grades, in the frequency of errors in the handling of parallel constructions, in the number of sentences complicated to the point of incoherence, and in mistakes in the correlation of tenses within the sentence. There is a marked decrease in the frequency of that most common childish mistake, the stringy or run-on sentence" (181: 532). The author ex-

TABLE XXX

PROPORTIONAL CLASS DISTRIBUTION OF ERRORS AFTER THE FACTOR OF HIGH-SCHOOL ELIMINATION WAS CONSIDERED

Class of Errors	High School Pupils (110)	College Pupils (110)	Decrease in Percentage
I	7	2.0	71
II	82	52.5	36
III	66	41.4	37
IV	33	36.7	11 (increase)
V	40	31.5	21
VI	162	41.4	74
VII	39	22.5	17
VIII	183	131.3	28.3
IX	118	98.5	16.5
X	148	157.6	6.5 (increase)
XI	177	101.0	43
XII	519	273.0	47.4
XIII	22	11.8	46.3
XIV	65	30.0	54

plained this situation by the fact that the upper-grade pupils used longer sentences, in which there was great possibility of error, as compared with the simple declarative sentences of the lower-grade pupils.

Johnson ranked the fourteen major classes of errors (p. 87) according to the amount of elimination occurring in each between the high-school Freshman year and the college Freshman year. This elimination is reported in Table XXX (117: 571). From this table Johnson found the order of persistence:

1. Mistakes in the use of adjectives and adverbs
2. Mistakes in capitalization
3. Mistakes in the use of the apostrophe
4. Failure to express clear meaning
5. Mistakes in the use of prepositions and conjunctions
6. Mistakes in punctuation

7. Mistakes in the use of pronouns (not in case)
8. Mistakes in the use of verbs
9. Careless omission or repetition
10. Mistakes in the use of quotation marks
11. Mistakes in spelling
12. Miscellaneous mistakes
13. Mistakes in case
14. Ungrammatical sentence structure [117: 572]

Persistence alone is insufficient to determine the order of needed emphasis in teaching.

The table [see foregoing order of persistence] simply shows the *relative order* of persistence; it indicates nothing as to the *relative amount* of each kind of error. For example, misspelling ranks eleventh in persistence, but it constitutes over 25 per cent of all mistakes made by the college pupils; and Class IV (mistakes in the use of adjectives and adverbs), ranking first in persistence, constitutes only $3\frac{1}{2}$ per cent of all college error. It would certainly be unwise to spend a great amount of time in a composition course upon an error that occurs very infrequently, and neglect one that occurs seven times as often, simply because the latter error has shown a greater percentage of decrease than the former. Hence, to determine the order of needed increase in emphasis, it is necessary to adjust a balance between the ranks of error according to persistence and the ranks according to prevalence (in the college group) [117: 576].

The very noticeable difference in ranks (averaging 3.8) [Table XXXI] shows the necessity of taking into account both persistence and prevalence in determining the *order of needed increase* in emphasis. This may be done by making a *third* ranking from the *sums of the ranks* of each class of error in persistence and prevalence [117: 576–77].

The order of suggested increase in emphasis on the classes of errors as proposed by Johnson is as follows:

1. Mistakes in capitalization
2. Mistakes in the use of the apostrophe
3. Mistakes in punctuation
4. Mistakes in the use of adjectives and adverbs
5. Mistakes in spelling
6. Mistakes in pronouns, *not including case*
   Careless omission and repetition[1]
7. Mistakes in the use of verbs
   Mistakes in the use of prepositions and conjunctions[1]
8. Sentence meaning not clear
9. Sentence structure ungrammatical
10. Mistakes in the use of quotation marks
11. Mistakes in the *case* of pronouns [117: 578]

[1] Equality of emphasis is indicated by ranking two classes of errors together.

A count of errors appearing in 3,386 compositions of high-school pupils made by Abbott (1) showed definite improvement in accuracy in written composition through the high-school course. The average number of errors per theme in Term I (Freshman year) was 8.75, while in Term VIII (Senior year) the average number of errors had been reduced to 5.37. Marked gains were reported in the use of the period at the end of the sentence, in the correct use of the apostrophe, in the avoidance of incomplete and run-on sentences, and in the agreement of subject and verb. Certain errors persisted through-

TABLE XXXI

COMPARATIVE TABLE OF RANKS IN PERSISTENCE AND PREVALENCE SHOWING DIFFERENCE AND SUM OF RANKS OF EACH CLASS OF ERRORS

Class of Errors	Rank in Persistence	Rank in Prevalence	Difference in Rank	Sum of Ranks
Mistakes in case	13	14	1	27
Misuse of pronouns (not case)	7	6	1	13
Misuse of verbs	8	7	1	15
Adjectives and adverbs	1	9	8	10
Prepositions and conjunctions	5	10	5	15
Ungrammatical sentence structure	14	8	6	22
Lack of clearness	4	12	8	16
Mistakes in punctuation	6	3	3	9
Misuse of the apostrophe	3	5	2	8
Mistakes in capitalization	2	2	0	4
Omission and repetition	9	4	5	13
Misspelling	11	1	10	12
Quotation marks	10	13	3	23
Miscellaneous	12	11	1	23

out the four years: failure to use parenthetical commas, the capitalizing of common nouns, and failure to capitalize the names of streets.

From his study of the frequency of errors at the different school levels—Grades VI–XII and college Freshmen and upper-class men—Stormzand traced the developmental phase, or what may be designated as the "relative persistence," of various types of errors at the various school levels. He compared his findings with those of Johnson and Lyman. His conclusions from the comparative study based on the ranking of errors are as follows:

Category VIII, "mistakes in punctuation," holds first place in the ranking through all school levels. Category XII, "mistakes in spelling," holds second or third place throughout. Category VII, "failure to express clear meaning," which

is third in the totals, holds second or third place at all levels except with the high-school Sophomores and the seventh grade, and is fourth in rank in these. The group ranking fourth in the totals, No. X, "mistakes in capitalization," quite consistently holds fourth or fifth place throughout, until the university upper-class level is reached, when it drops to eleventh place.

It is a striking fact that among the three leading error groups we are not dealing with distinctively grammatical elements, although a number of the rules for punctuation, the worst group in the matter of error, involves several grammatical applications [224: 178].

Practically the same persistence was found for all the categories except Category XIV, miscellaneous grammatical and rhetorical errors, in which there was a general improvement from the lower to the higher levels.

TABLE XXXII

NUMBER OF ERRORS PER SENTENCE AND THE RATIO OF THE NUMBER OF ERRORS TO THE NUMBER OF WORDS FOR DIFFERENT SCHOOL LEVELS

	Errors per Sentence	Ratio of Errors to Words
1. University upper-class men	0.9	1:22.9
2. University Freshmen	0.9	1:20.3
3. High-school Seniors	1.1	1:20.7
4. High-school Juniors	1.2	1:14.8
5. High-school Sophomores	1.4	1:12.4
6. High-school Freshmen	1.4	1:12.2
7. Eighth-grade pupils	1.2	1:12.4
8. Seventh-grade pupils	1.1	1:12.4
9. Sixth-grade pupils	1.1	1:11.5

Stormzand approached the matter from another point of view in order to determine the trend in the overcoming of errors. He reduced the total number of errors to the number per sentence and calculated the ratio of the number of errors to the number of words. His findings are shown in Table XXXII (224: 179).

The ratio of the number of errors to the number of words showed considerable general development. Stormzand said in summary:

> When we take the developmental control of error for the different levels of school into consideration with the fact that the ranks in the various categories of error are practically constant, we reach the conclusion in connection with the whole matter of composition errors that, while there are practically twice as many errors at the lower school level as at the upper, the fact is explained by improvement from year to year in all the various categories rather than by the elimination of any particular types of error [224: 179].

f) COMPARISON OF ERRORS IN WRITTEN ENGLISH AND ERRORS IN ORAL ENGLISH

Errors classified in separate lists.—A study of Table XXII (47: 204; 46: 101) from the report by Charters and Miller of oral errors and Table XXIII (49: 18–19) from their report of written errors shows that, when items belonging to written work alone are disregarded and the twenty-one errors in grammar compared in frequency for oral and written work, the relative order of frequency is approximately the same. Verb errors constituted more than 50 per cent of all errors in each form of expression. However, when all items are considered, grammar holds a relatively smaller place in the total of twenty-seven errors in written work than is held by items of punctuation.

Thompson (232) found that the order of frequency of errors in written work made by children in Grades V–VIII in six Illinois school systems and in two schools in Chicago was approximately the same as the order of frequency of errors in oral English when only syntactical errors were considered.

Diebel and Sears found little correlation between the child's spoken language and his written language.

> The child, in fact, sets up for himself a double standard. His ordinary speech will not do at all when he expresses himself in writing; all the grammar he has learned so far he applies to his written work only; and not until we succeed in making him use the correct form unconsciously can we alter his oral expression [68: 175].

Diebel and Sears found that in speech verbs caused 50 per cent of all errors, while in written language verbs caused only 10.8 per cent of the errors. Double negatives caused 11.6 per cent of all errors in speech but only 0.2 per cent of the errors in writing. These reductions, however, were due to the addition of items for written work which do not apply to speech—punctuation and capitalization. A study of errors in grammar alone for both oral and written work revealed the same general order of frequency.

Errors in speaking and in writing classified in a common list.—The studies just reported classified separately errors in oral English and errors in written English. A few studies have classified in a single list errors in both oral and written English. Tressler recorded and classified seven hundred errors in grammar made by second-year and

fourth-year pupils in the Newtown High School, New York City, in their speech and in written composition. He made no attempt to separate errors in oral and written English in this study. Typical errors found by Tressler are as follows:

1. Use of a wrong verb or auxiliary—18 per cent
2. Failure of a verb to agree with subject—15 per cent
3. Misspelling the possessive case of nouns and pronouns—9 per cent
4. Syntactical redundancy—8 per cent
5. Connecting sentences by commas or using periods after parts of sentences—7 per cent
6. Confusion of tenses—6 per cent
7. Mistake in principal parts—4 per cent
8. Use of wrong part of speech—4 per cent
9. Misplacing of modifier—3 per cent
10. Lack of agreement of pronoun with antecedent—3 per cent
11. Use of wrong case—3 per cent
12. Mistake in form or use of comparative and superlative—3 per cent
13. Use of dangling participle—2 per cent
14. Mistake in spelling or use of singular or plural of a noun—2 per cent
15. Use of pronoun without required antecedent—2 per cent
16. Use of wrong preposition or conjunction—2 per cent
17. Use of wrong pronoun—2 per cent
18. Misuse of "a," "an," "the," "this," "that," "those," "these"—1 per cent
19. Omission of word necessary for grammatical structure—1 per cent
20. Double negative—1 per cent
21. Use of wrong grammatical element—$\frac{8}{9}$ per cent
22. Lack of parallelism of structure—$\frac{5}{9}$ per cent
23. Failure to use subjunctive for wish and condition contrary to fact—$\frac{4}{9}$ per cent
24. Wrong word order in indirect discourse—$\frac{3}{9}$ per cent [**240**: 645–50]

Tressler concluded that this list probably reflects rather accurately grammatical speech and writing habits in the average cosmopolitan high school. Myers (**160**) classified ten thousand errors in oral and written English collected by teachers in Redfield and Deadwood, South Dakota. Forty-three items often repeated constituted 8,175, or nearly 82 per cent, of the total number of errors; thirteen of the items constituted 48 per cent of all the errors; 42 per cent of all the errors were verb errors, and 13.5 per cent were pronoun errors. The thirteen most frequent errors classed by Myers as "archdemons" are "ain't," capital letter, "did"-"done," double negative, double

nominative, "git," "in" for "ing," "of" for "have," period, "saw"-"seen," "that there" or "this here," "was"-"were," and "well" or "w'y."

g) WEIGHTING OF ERRORS IN WRITTEN ENGLISH ACCORDING TO IMPORTANCE

The investigations reported in this chapter thus far have indicated the relative frequency of the different types of errors. The studies by Charters and those which followed his lead determined relative frequency on the basis of percentages of the total number of errors; the Johnson and Lyman studies calculated relative frequency on the basis of ranking. By such methods exaggerated importance

TABLE XXXIII*

ERROR GROUPS RANKED BY TOTALS AND BY ERROR QUOTIENTS

Type of Error	Rank in Charters' Study of Errors	Rank According to Stormzand's Error Quotients
Failure to put an apostrophe to denote possession...	5	1
Failure to put a question mark at the end of a question	10	2
Misplaced modifiers.....	9	3
Failure to put a period at the end of a statement...	1	4
Omission of predicate.....	7	5
Subject of verb not in the nominative case.....	12	6

* Rearranged from author's data.

may be given to certain items, and the seriousness of certain other items may be underestimated. Two studies were reported which undertook to weight errors on some basis other than frequency.

Errors ranked according to "error quotients."—Stormzand (224) attacked the problem of the relative importance of various items of usage by determining the relation between the actual number of errors made by children and the number of opportunities for errors, expressing the relation in terms of "error quotients." The data concerning error quotients were summarized as a basis for showing the need for some such method of weighting for all common errors in order to determine scientifically their relative importance. Stormzand found twenty-two of the twenty-seven categories used by Charters to be comparable with categories used in his own study of errors. Error quotients were determined for six of these categories. The results are presented in Table XXXIII (224: 186).

The variations in the ranks of certain of the important types of errors are significant.

The omission of the period at the end of a sentence drops to fourth place on this principle. The omission of the apostrophe to denote possession shows up as an error that is made in 41.5 per cent of the chances, and the interrogation mark is omitted in 37.5 per cent of the chances. The period error has dropped to 3.7 per cent of the chances. There seems to be rather striking evidence on this basis that the two former are errors due to incomplete training, while the last may be set down as a matter of simple carelessness. To remedy the latter difficulty, we would adopt an entirely different method from that which we would employ to overcome errors due to inadequate or wrong training [224: 186–87].

TABLE XXXIV

ERROR QUOTIENTS FOR THREE COMMON ERRORS IN THE USE OF VERBS

	Number of Errors	Number of Opportunities for Errors	Error Quotient
Wrong number of verb with expletive "there"	13	172	.076
Wrong form in past tense	4	1,649	.002
Wrong form in past participle	5	119	.042

As shown in Table XXXIV, Stormzand has established error quotients for three of the mistakes in the use of verbs found to be most frequent in all early studies.

These data suggest that, while wrong form in past tense and wrong form in past participle are very close in rank according to frequency, the relative importance of the two items differs greatly when the error quotient is considered. The wrong form in the past participle will be used four times in one hundred cases, while the wrong form in the past tense will be used twice in one thousand cases.

Stormzand rearranged the various types of errors in the order of their importance on the basis of error quotients. Table XXXV (224: 191) presents his results.

Although the error quotient has a positive value in determining the importance of the various items of usage, too much confidence should not be placed in it. An error quotient is significant only when the number of words of composition needed to produce the opportuni-

ties for error are known. In other words, in order to determine relative importance, frequency of use needs to be considered in relation to the number of words as well as frequency of errors in relation to frequency of use.

TABLE XXXV*

TYPES OF ERRORS IN SCHOOL COMPOSITIONS ARRANGED IN THE ORDER OF IMPORTANCE AS DETERMINED BY ERROR QUOTIENTS

Type of Error	Error Quotient†	Rank
Comma setting off dependent clause out of its natural order omitted	650	1
Name of city and state written without punctuation	600	2
Independent clauses of compound sentences not separated	578	3
Hyphen omitted in compound word	507	4
Non-restrictive clause not set off	495	5
Members of series not separated	492	6
No punctuation after introductory expression	458	7
Comma before, after, or in broken quotation	447	8
Use of objective for possessive with gerund	444	9
Wrong form of possessive nouns	427	10
"You" used indefinitely	390	11
Failure to capitalize proper nouns and adjectives	316	12
Failure to distinguish "it's" and "its"	290	13
Interrogation mark omitted	259	14
"Only" misplaced in sentence	237	15
"O'clock" written without apostrophe	231	16
Use of "most" for "almost"	222	17
Miscellaneous misuses of apostrophe	211	18
No period after titles	193	19
No period after abbreviation	147	20
Misuse of quotation marks	110	21
Wrong number of verb with expletive "there"	76	22
Wrong form in past participle	42	23
No period (group total)	30	24
Predicate nominative pronoun in wrong case	22	25
Misspelling of "there" or "their"	21	26
No period at end of sentence	19	27
Failure to use capital at beginning of sentence	10	28
Pronoun object of verb in wrong case	6	29
Pronoun object of preposition in wrong case	4	30
Incomplete sentence	4	31
Misspelling of "to," "too," or "two"	4	32
Wrong form in past tense	2	33
Pronoun subject of verb in wrong case	0.3	34

* Rearranged from author's data.

† The figures indicate the number of errors that may be expected in school compositions in 1,000 opportunities.

It has been pointed out earlier in this chapter that a study of errors is of value in determining the specific needs in a given school in order that the teachers may direct their efforts effectively and eco-

nomically. In his study of error quotients Stormzand pointed out that his purpose was to illustrate a method of weighting errors to deter-

TABLE XXXVI

ERRORS RANKED IN THE ORDER OF THEIR SERIOUSNESS BY TWENTY-FIVE TEACHERS AND PERCENTAGE OF ERRORS OF EACH TYPE IN 1,152 COMPOSITIONS

Error	Rank of Errors	Percentage of Total Number of Errors in 1,152 Compositions of 192 Pupils
1. Fragments as complete sentences	1	2.4
2. Incomplete constructions or undeveloped thought	2	2.7
3. Necessary words omitted	18	5.0
4. Comparison in thought not complete	30	0.1
5. "Because" introducing any but an adverbial clause	31	0.0
6. The statement "the reason is" not completed by a "that" clause	27	0.0
7. "When" or "where" clause used as predicate noun	26	0.0
8. Transitions not clear	22	0.0
9. Unrelated ideas in one sentence	5	0.9
10. Excessive detail	25	2.0
11. Stringy sentence	7	13.9
12. Choppy clauses needing combination	12	12.0
13. Faulty subordinations of the main thought omitted	15	3.0
14. Subordinations spoiled by "and which," etc.	13	0.5
15. Omission of capital letters	3	19.0
16. Omission of terminal punctuation	4	23.0
17. Divided reference of pronouns	10	1.0
18. Weak reference of pronouns	14	1.0
19. Broad reference of pronouns	16	1.0
20. Dangling gerunds	19	0.0
21. Dangling participles	17	0.1
22. General incoherence	6	0.0
23. Lack of logical sequence	28	0.2
24. Squinting modifiers	23	0.0
25. Misplaced words	29	0.1
26. Split construction	24	0.2
27. Inappropriate parallel structure	34	0.2
28. Wrong conjunctions used as correlatives	33	0.0
29. Shift in subject or in voice	32	0.0
30. Shift in number	21	0.2
31. Shift in person	8	0.0
32. Shift in tense	9	0.6
33. Weak use of conjunction	20	2.0
34. Failure to use connectives in parallel series	35	0.2
35. Over-repetition of connectives	11	4.0

* Rearranged from author's data.

mine emphasis of instruction. The practical value would lie in having schools or teachers compile similar tables for their own classes.

Errors ranked in the order of seriousness by consensus of opinion.—Price asked twenty-five teachers of composition to rank thirty-five sentence errors in the order of their seriousness as violations of good sentence structure. Their judgments are shown in Table XXXVI (182: 40). The original tables from which the data are taken omit, apparently by oversight, one of the original thirty-six errors, namely, "excessive co-ordination."

Price examined 1,152 compositions written by 192 junior high school pupils to determine the frequency with which each of the sentence errors occurred. The data are included in Table XXXVI. The two errors which the twenty-five teachers ranked as 3 and 4 in importance, omission of capital letters and omission of terminal punctuation, constituted 42.0 per cent of the total, and seven other sentence errors—Nos. 1, 2, 3, 11, 12, 13, and 35—constituted 43 per cent of the total; the nine weaknesses, then, accounted for 85 per cent of all the errors made by the pupils.

h) ERRORS IN WRITTEN ENGLISH AND CONTROL TESTS

The testing movement in education has brought about important changes in school procedure, making available objective data for use in measuring quantitatively the attainments of a given school, grade, or pupil and in comparing such attainments with those of other schools, grades, or pupils; through tests also are secured data for diagnosing the specific needs of particular groups or individuals; and a technique of testing has developed which has improved classroom work. This section presents (1) a summary of available standardized tests in English usage, (2) a survey of types of difficulties revealed through standardized tests, and (3) a diagnosis of pupil needs through informal, unstandardized tests.

(1) SUMMARY OF AVAILABLE STANDARDIZED TESTS IN ENGLISH USAGE

The leading tests in language, grammar, sentence structure, and punctuation are named in Table XXXVII.

(2) SURVEY OF TYPES OF DIFFICULTIES REVEALED THROUGH STANDARDIZED TESTS

Different procedures have been followed by test-makers in attempts to construct instruments for determining the weaknesses in pupils' English in control situations. Attempts have been made to

TABLE XXXVII

TESTS IN ENGLISH USAGE

Test	Author	Date	Grades	Reliability Coefficient	Publisher
Thompson's Minimum Essentials in Language	T. E. Thompson	1912	III–XII	.....	Ginn & Co.
Starch's English Grammar Tests	D. Starch	1916	VII–XII	.....	University Co-operative Co., Madison, Wisconsin
Starch's Punctuation Scale A	D. Starch	1916	V–XII	.....	University Co-operative Co., Madison, Wisconsin
Starch's Grammatical Scale A	D. Starch	1916	V–XII	.....	University Co-operative Co., Madison, Wisconsin
Clemens' Grammar Test	A. H. Clemens	1916	IX–XVI	.....	A. H. Clemens, Rochester, Minnesota
Clemens' Punctuation Test	A. H. Clemens	1916	IX–XVI	.....	A. H. Clemens, Rochester, Minnesota
Charters' Diagnostic Language Tests	W. W. Charters	1918	III–XII	.78	Public School Publishing Co.
Charters' Diagnostic Language and Grammar Tests	W. W. Charters	1918	VII–VIII	.78	Public School Publishing Co.
Gregory Language and Grammar Test	C. A. Gregory	1919	III–VIII	.....	University of Oregon Publication, Vol. I, No. 1
Kelley's Completion Exercises, Alpha and Beta, Adapted to Individual Testing	T. L. Kelley	1920	II–XII	.....	Teachers College, Columbia University
Trabue's Completion Test Language Scales	M. R. Trabue	1920	II–XII	.....	Teachers College, Columbia University
Briggs's English Form Test	T. H. Briggs	1920	VII–IX	.79	Teachers College, Columbia University
Briggs's Analogies Tests	T. H. Briggs	1921	VII–IX	.....	Teachers College, Columbia University
Clapp's Standard School Tests in Correct English	F. L. Clapp	1921	V–VIII	.....	University of Wisconsin
Purdue English Test	G. C. Brandenburg	1922	IX–XVI	.....	Purdue University
Cross English Test	E. A. Cross	1923	IX–XVI	.....	World Book Co.
Stanford Language Usage Test	T. L. Kelley, G. M. Ruch, and L. M. Terman	1923	IV–IX	.67	World Book Co.
Wilson Language Error Test	G. M. Wilson	1923	III–XII	.90	World Book Co.
University of Wisconsin Test of Grammatical Correctness	S. A. Leonard	1923	VII–XII	.67	National Council of Teachers of English
University of Wisconsin Sentence Recognition Test	S. A. Leonard	1923	VII–XII	.75	National Council of Teachers of English

TABLE XXXVII—*Continued*

Test	Author	Date	Grades	Reliability Coefficient	Publisher
Diagnostic Tests in English Composition—Grammar	F. R. Conkling and S. L. Pressey	1923	VII–XII	.90	Public School Publishing Co.
Diagnostic Tests in English Composition—Punctuation	S. L. Pressey and H. Ruhlen	1923	VII–XII	.64	Public School Publishing Co.
Diagnostic Tests in English Composition—Sentence Structure	F. R. Conkling and S. L. Pressey	1923	VII–XII	.73	Public School Publishing Co.
Diagnostic Tests in English Composition—Capitalization	S. L. Pressey and E. V. Bowers	1923	VII–XII	.79	Public School Publishing Co.
Kirby Grammar Test	T. J. Kirby	1924	VII–XII	*	State University of Iowa
Witham Grammar Test—Pronouns	E. C. Witham	1924	VI–VIII	.....	J. L. Hammett & Co., Cambridge, Massachusetts
McDade Language-Grammar Test	J. E. McDade	1924	IV–XII	.....	Plymouth Press, Chicago, Illinois
Franseen Diagnostic Tests in Language	C. E. Franseen	1924	III–VIII	.....	Bureau of Administrative Research, University of Cincinnati
Tressler English Minimum Essentials Test	J. C. Tressler	1925	VIII–XII	.78	Public School Publishing Co.
New York English Survey Test—Language Usage	W. W. Coxe, E. L. Cornell, J. S. Orleans, and E. B. Richards	1925	IV–VIII	.....	Public School Publishing Co.
New York English Survey Test—Sentence Structure	W. W. Coxe, E. L. Cornell, J. S. Orleans, and E. B. Richards	1925	IV–VIII	.....	Public School Publishing Co.
New York English Survey Test—Grammar	W. W. Coxe, E. L. Cornell, J. S. Orleans, and E. B. Richards	1925	VII–VIII	.....	Public School Publishing Co.

* Principles, .91; sentences, .70.

TABLE XXXVII—*Continued*

Test	Author	Date	Grades	Reliability Coefficient	Publisher
Columbia Research Bureau English Test	H. R. Steeves, A. Abbott, and B. D. Wood	1925	IX–XVI	.....	World Book Co.
Kansas Grammar Tests	T. Ryan and L. B. Barrett	1926	VII–XVI	.....	Bureau of Educational Measurements and Standards, Emporia, Kansas
Schutte English Diction Test	T. H. Schutte	1926	VII–XVI	.....	Public School Publishing Co.
Minimal Essentials Tests in English Composition	J. T. Seaton and S. L. Pressey	1926	III–VI	.....	Public School Publishing Co.
The Progress Language-Form Test	Lefler, Goodrich, Beattie, and McPhee	1926	III–VIII	.....	University Publishing Co., Chicago, Illinois
English Test	L. B. Barrett and T. Ryan	1927	IX–XVI	.....	Bureau of Educational Measurements and Standards, Emporia, Kansas
Chicago Practice Tests for Mastery	S. C. Camenisch	1927	IX	.....	English Journal
O'Rourke Grammar Survey Tests	L. J. O'Rourke	1927	VII–XII	.....	Educational and Personnel Publishing Co., Washington, D.C.
The Pribble-McCrory Diagnostic Tests in Practical English Grammar	E. E. Pribble and J. R. McCrory	1928	IX–XVI	.....	Lyons & Carnahan

design tests which confront all pupils with the same opportunities for error and which require less labor on the part of teachers than is required in an analysis of errors in compositions. Investigations which have attempted surveys of difficulties through such control tests have employed (1) proofreading or correction-of-error tests, (2) composites of tests using different methods of procedure, (3) choice of correct or incorrect forms, (4) exercises to secure automatic responses, (5) dictation tests, and (6) completion tests.

Studies employing proofreading or correction-of-error tests.—Potter and Touton attempted through a proofreading test in written composition "to determine in quantitative terms how well normal samplings of pupils enrolled in the several half-grades of the junior-senior high school are able to make correct use of the several tools of English written expression" (177: 1). The authors examined previous studies of errors and incorporated sixty-four types of the most common errors of secondary-school pupils into a composition of five hundred words to be corrected by the pupils. This test controlled the pupils' responses, whereas in free composition-writing a pupil may evade difficulty by adopting alternative forms of expression. Two hundred test papers were selected from each half-grade, and the frequency of acceptable corrections of each error was recorded in order to determine the accomplishments of the pupils. The total correction mean indicated that gains were made in the number of acceptable corrections throughout the several grades of the secondary school with the exception of the low eighth grade. The authors discovered that, "of all the errors incorporated in the test, those in punctuation, diction, and paragraphing are the most stubbornly persistent, that errors in sentence structure are decidedly persistent, closely paralleling in this respect the punctuation errors, and that errors in grammar are the least persistent in the secondary school" (177: 21).

Cade (37) made a study of errors in English not recognized by entering Freshmen in the University of Arkansas, administering to more than four hundred students the Conkling and Pressey Diagnostic Tests in English Composition—Grammar and Sentence Structure. The tests were designed to determine whether students recognize certain definite errors. Cade summarized the findings as follows:

Out of the 120 sentences in the 30 groups (4 sentences to the group), there are thirty sentences with a total of thirty errors. These errors may be classified as follows: 16 of the 30 errors pertain to the use of verbs; 9 of the 30 errors pertain to the use of pronouns; 3 of the 30 errors are adjectives used instead of adverbs; 1 of the 30 errors is a preposition used as an adverb; 1 of the 30 errors is the use of "a" for "an" [**37**: 4].

A study of the order of difficulty of the items in the grammar test revealed the fact that pronouns presented greater difficulty than did verbs. Of the seven sentences causing the greatest difficulty, six contained errors pertaining to the use of pronouns; seven of the eight sentences offering the least difficulty contained verb errors. The results in the test of sentence structure confirmed these data; the eight sentences causing the greatest difficulty contained errors in the use of pronouns. Cade recommended five grammatical forms needing the greatest attention: (1) proper case form of pronouns, (2) agreement of pronouns with their antecedents in number, (3) the difference between adjectives and adverbs containing the same roots, (4) illiterate and vulgar verb forms, and (5) agreement of the verb with its subject in number (**37**: 5–6).

Results of Briggs's English Form Test administered to more than four thousand pupils in Grades VII–IX were reported by Briggs (**30**). This is a proofreading test including seven different items of punctuation: (1) initial capital, (2) terminal period, (3) terminal interrogation point, (4) the capital for a proper noun or adjective, (5) detection and correction of a run-on sentence, (6) the apostrophe of possession, and (7) the comma before "but" co-ordinating the members of a compound sentence. The average scores in percentages of errors revealed the fact that pupils as trained at present are far from mastery of these seven essentials of English form. Records for the three grades showed that the order of difficulty remains the same through these grades: (1) apostrophe of possession, (2) capital for proper noun or adjective, (3) detection and correction of run-on sentences, (4) comma before "but," (5) terminal question mark, (6) terminal period, and (7) initial capital.

In a remedial program (**42**) for English instruction in the Northwestern High School, Detroit, Briggs's English Form Test was administered to approximately twenty-five hundred pupils. The items

in the order of greatest difficulty for these pupils were (1) apostrophe of possession (7,347 errors), (2) capital for proper noun or adjective (6,816 errors), (3) detection and correction of run-on sentences (4,382 errors), (4) comma before "but" co-ordinating the members of a compound sentence (3,385 errors), (5) terminal interrogation point (1,428 errors), (6) terminal period (535 errors), and (7) initial capital (265 errors).

It is significant that the order of difficulty is the same in these two studies; the items causing the greatest difficulty are stubbornly persistent through the elementary school and the high school. Obviously these items deserve greater emphasis in the teaching program.

Studies of sentence recognition.—Leonard described the construction of the University of Wisconsin Sentence Recognition Test, devised "in the attempt to get true measures of frequency for recognition of sentences in tests and, with the practice materials which grew up with them, to provide practicable teaching devices for insuring mastery of this particular form" (131: 348). He pointed out the impracticability of trying to teach any internal punctuation of sentences until punctuation of the sentence as a unit is definitely mastered. He summed up the present practice as follows:

> Our teaching of punctuation has been almost wholly and most regrettably an affair of going once cursorily over a large number of grammatical, rhetorical, and other principles and achieving the mastery of none [131: 349].

The first step in the study was to find the kinds and, roughly, the proportion, of various difficulties in recognizing and marking sentences. Nothing was considered but "the ability to recognize the end of a sentence and to separate it by period (or semicolon) from the next independent statement, or to join non-sentences or fragment sentences to the independent clauses to which they belong" (131: 348–49). Final test forms, constructed on the basis of results of preliminary tests, given to several thousand pupils from Grade VII through Grade XIII, the first year of the normal school, revealed the fact that the placing of the period is not a fixed habit of a majority of the pupils in any of the grades. The order of difficulty of various sentences according to the percentage of failure to correct each error is given in Table XXXVIII (131: 354–55).

The most difficult item proved to be the non-sentence in which a phrase which belongs at the end of the sentence is begun with a capital letter and preceded by a period. The next most difficult

TABLE XXXVIII*

ORDER OF DIFFICULTY OF VARIOUS SENTENCES ACCORDING TO THE PERCENTAGE OF FAILURE TO CORRECT EACH ERROR (WEIGHTED AVERAGE OF GRADES VII–XII—MORE THAN 5,000 CASES IN ALL)

Type of Sentence	Average Percentage
1. Second element a phrase mispunctuated as a sentence	49.4
2. Divided quotation of two sentences with comma punctuation only	47.3
3. Second element beginning with "therefore"; comma punctuation	39.9
4. Second independent statement preceded by subordinate clause; two sentences separated by comma only	29.5
5. Second independent statement beginning with "then"; two statements, separated by comma only	24.7
6. Compound sentence followed by unconnected independent statement, separated by comma or no mark	23.6
7. First element a dependent clause mispunctuated as a sentence	23.1
8. Second independent statement beginning with a phrase; statements separated by a comma only	23.1
9. Second independent statement beginning with "he" or "it"	22.1
10. Second independent element beginning with "you," "they," "this," "these," etc.	19.3
11. Second independent statement beginning with "consequently"; comma punctuation only	19.1
12. Second independent statement beginning with "there"; statements separated by comma only	13.6

* Rearranged from author's data.

item was the divided quotation of two sentences separated by a comma only. Leonard commented on this item as follows:

It is curious to note that this problem of the divided quotation occurs in grade-school courses all the way from the third onward. Obviously it is not

mastered; indeed, the problem is misunderstood even by many teachers. These results suggest that the grade schools would do better to make less ambitious attack on problems of doubtful utility, such as the finer cases of quotation punctuation—even the quotation within a quotation is "learned," usually—and compass a mastery of plain cases of sentence recognition [131: 355–56].

Sentences made up of two independent clauses with adverbs such as "then" and "therefore" between the clauses also proved difficult. The author pointed out the possible reason for difficulty.

These and similar words, such as "however" and "hence," are confusingly called conjunctions, or sometimes "conjunctive adverbs" or "adverbial conjunctions," in many grammar and composition books for both the grades and the high school. . . . . It seems better not to represent "therefore," "however," and other like adverbs as grammatical connectives at all; it is not difficult to teach so short a list of true co-ordinate conjunctions as those listed above and to insist that all independent statements not containing them be regarded as two separate sentences—with the option of punctuation with a semicolon. It should be noted specifically that words like "consequently," "therefore," and "hence" probably do not appear of themselves in elementary-school composition and need not be dragged in [131: 356].

Studies employing composites of tests using different procedures.—Guiler, attempting to show the value of diagnostic tests in discovering learning difficulties which students encounter in the mechanics of English composition, gave a series of diagnostic tests to thirty-nine college students who were failing in English composition. The study disclosed the fact that each field—punctuation, capitalization, verb, pronoun—is a composite of many specific usages. Capitalization and punctuation each involve a score or more of particularized abilities. Verb usage is "a matter of using correctly many verbs in their various tense and number forms." Mastery of pronouns "involves ability to manage many pronouns in their gender, person, number, and case forms" (87: 115–16). It is not enough for the teacher to determine the field of greatest difficulty; she needs to know the specific difficulties before she can plan effective remedial instruction. The wide individual variations found in the mechanics of English indicate the distinct need for much individual diagnosis and individualized instruction in this field.

In a co-operative investigation in English (142) the Noyes Language Test was administered to 2,682 ninth-grade pupils in 127 classes

in 59 schools. This test contains six divisions: (1) capitalization, (2) punctuation, (3) parts of speech, (4) function in sentence, (5) verb forms, and (6) syntax of clauses and phrases. The results showed that, as a whole, the work of these pupils was not creditable in Items 1, 2, and 3 and that the group as a whole knew little of syntax of phrases and clauses and was extremely weak in verb forms. The wide variation among the various schools revealed the fact that no common agreement obtains as to the items deserving the greatest emphasis in the classroom.

Studies employing choice of correct or incorrect forms.—Ashbaugh (6) estimated the ability of high-school pupils to recognize correct forms when they are paralleled with the incorrect forms, testing 310 high-school Seniors by means of the Tressler English Minimum Essentials Test. He found the greatest number of errors in grammar to be due to (1) failure to consider the number of the verb and the subject, (2) confusion of tense of verbs, and (3) difficulty with inflected pronouns. Ten groups of sentences in the test required the pupils to discover whether a group of words is or is not a sentence. The easiest group of words was missed by 10 per cent of the pupils, while the hardest group was missed by 62 per cent.

Kirby (125) collected from experienced teachers a list of the errors in English which they had found frequently in their own classrooms and the grammatical principles involved in each. From this list a grammar test was devised which attempted to measure ability (1) to choose the correct English usage and (2) to recognize the principle in accordance with which the usage is correct. The items included in the test indicate, therefore, the judgments of a large number of teachers based on their observations of pupils in the classroom. While the accuracy and the completeness of such a list are open to serious criticism, the test does, perhaps, represent the functional point of view more adequately than do tests based on items included in courses of study or textbooks. Five items are included in the test: (1) sentences dealing with the choice of personal pronouns, (2) sentences dealing with pronouns in general, (3) sentences dealing with verb forms, (4) double negatives, (5) conjunctions, prepositions, adjectives, and adverbs.

A study employing exercises to secure automatic responses.—Clapp

devised a test "which might be used to determine whether or not the use of certain forms [of language] had become automatic in the minds of pupils." He attempted to get automatic responses through a series of exercises in which pupils were required to use either the correct or the incorrect form of expression without having their attention directed to form. Standards for Grades V–XII, inclusive, were established on the basis of the scores of approximately four thousand pupils in each grade. The points most difficult for both elementary-school and high-school pupils were reported by Clapp as follows:

1. Possessive sign—with plural ending in "s"
2. Your—modifying gerund
3. Me—in compound object
4. This—modifying kind, e.g., "this kind"
5. Have not—instead of "have not got"
6. That—modifying kind, e.g., "that kind"
7. Possessive sign—with plural not ending in "s"
8. Tense—same tense in sequential clause
9. Used—not "use" or "ust"
10. Capital—beginning direct quotation
11. Adverb—"could hardly" not "could not hardly"
12. Adverb ending in "ly" [51: 45]

A study employing a dictation test.—One attempt (114) to measure pupils' command over language forms by means of a dictation test was reported. Three points were graded: (1) number of misspelled words, (2) number of words wrongly used, and (3) number of sentences written incorrectly. The report indicated that gains from Grade V B through Grade VIII A were steady and marked. Records of twenty-seven classes on a retest a year later showed improvement in from one to three of the points graded; while fourteen classes had retrogressed in one line. The author commented on the value of the test in locating specific needs of groups, although no report of specific types of errors was given. The test seemed to be used chiefly for locating groups which were below the average of the system.

Studies employing completion tests.—Pintner (173) measured the progress of pupils in English through the use of Trabue's Completion Test Language Scales (B and C). Tests administered in October and in May showed constant and steady gain in the lower classes, including Grade IV, but from that point forward, through Grade IX,

the improvement fluctuated around 0. This fact indicates the need for more difficult scales for the upper grades in order to bring out the progress that has taken place.

A survey (90) of the language abilities of St. Paul pupils through the use of Trabue's Completion Test Language Scales revealed considerable overlapping of English abilities through the elementary school and the high school. A test on specific items as included in the completion exercises indicates that certain errors persist; the results are therefore valuable for teachers in planning remedial instruction.

Frost (81) determined the difference in performance of rural-school pupils and of urban-school pupils of different ages as measured by Trabue's Completion Test Language Scales. The pupils in county six-month schools showed less ability and less improvement for the ages from ten to thirteen, inclusive, than did any pupils studied except certain St. Paul pupils. The county nine-month schools were next to the lowest in final ability according to the scale, but no system studied made greater gains than did these schools. Frost concluded as follows:

> Since this test measures a quality not proved to be solely, or even largely, determined by school training, this difference is not a reliable measure of school efficiency [81: 31].

The ranking of errors according to the percentage scores of 3,419 pupils in Grades VII–XII, inclusive, on the University of Wisconsin Test of Grammatical Correctness was summarized by Leonard.

> (1) "Hair are" or "were," with 32.1 per cent of error, (2) "them" or "those kind" with 26.6 per cent, and (3) "wish you would have" with 25.3 per cent stand at the top of this list, with percentages of error in excess of 25 for weighted averages of Grades VII and XII. . . . .
>
> On the other hand, "seen" for "saw," 1.3 per cent; "can I?" 1.5 per cent; and "learn us," 2.1 per cent appear at the bottom of the list with weighted averages near or below 2 per cent. . . . . These three have therefore been omitted from the revised tests for high-school use; they can evidently be mastered before Grade VII, and in properly organized courses be simply required beyond that place, but not constitute problems for high-school attack. But forms such as "hair are," which runs from 71.7 per cent error in Grade VIII to 14.3 per cent in Grade XIII—first-year normal school—should receive more attention than in the past [132: 441–42].

Leonard said of such a test:

> As a result, though no test is probably very good as an indication of what children or others use in speech or even in their own writing, we have a clear measure of knowledge of the right form; there is shown here what several thousand children, knowing that a word is wanted in a sentence, do actually write in that sentence in schoolrooms, how many of them know and can command the right form, and how many use the wrong. Since the forms are not there to choose, but the sense of the sentence naturally suggests the word to which the child is accustomed, it is probable that the element of chance is pretty well eliminated and that we find out the best of the pupil's knowledge and belief [132: 430].

(3) DIAGNOSIS OF PUPIL NEEDS THROUGH INFORMAL, UNSTANDARDIZED TESTS

In several instances teachers have carried on rather thorough studies of the difficulties of pupils through the use of unstandardized control tests. Two such studies are reported here as suggestive of undertakings which are worthy of consideration although they are not strictly scientific in character.

McPhee (**150**) reported an attempt on the part of teachers in Lincoln, Nebraska, to determine the relative difficulty of thirty-nine language forms found to be frequent in studies of errors. A test which required pupils to select the correct forms when correct and incorrect forms were presented was administered to 5,026 pupils in Grades II A–VI A, inclusive. Certain outstanding facts were revealed. (1) Verb and pronoun errors were persistent. The twenty-three verb forms were responsible for 62.3 per cent of the total number of errors made; and the twelve pronoun forms, for 28.0 per cent of the errors. (2) Children were not certain of the correct form of verbs in the past tense. (3) Mistakes were made in the use of personal pronouns in the objective and nominative cases. (4) Use of the double negative, failure to make pronouns agree with their antecedents, and disagreement of verb and subject were common mistakes.

From the study of errors an attempt was made to determine the grade placement of certain language forms.

In a similar study (**32**) an attempt was made by the teachers in the Corkery School, Chicago, to rank the language errors of pupils in the order of difficulty and to arrange them in grade lists. They constructed informal tests in the form of stories which contained the

twenty-eight language errors reported as most common by Wilson (257) and administered them to pupils in all the grades in the school for proofreading. The errors which the pupils most frequently failed to correct were ranked as the most difficult, and the results were used as a basis for the grade lists.

3. VALIDITY AND RELIABILITY OF DIAGNOSIS

a) EVALUATION OF INSTRUMENTS EMPLOYED AS FORMAL TESTS IN ENGLISH

The testing movement in language rests on assumptions which are open to serious criticisms. The belief that language tests are diagnostic is based on the questionable assumption that ability to distinguish between right and wrong language forms and to correct the latter indicates that the pupil actually uses language forms correctly in his own speech and writing. Another doubtful assumption is that a single test or the analysis of the errors in a single theme is valid evidence of the kind of information and of remedial work needed by the pupils. This section reviews several investigations undertaken to determine the validity of such assumptions under the headings: (1) validity of formal tests in diagnosis and prognosis, (2) merits of the methods employed in formal tests, and (3) validity of the analysis of the errors in a single theme as a measure of composition ability.

(1) VALIDITY OF FORMAL TESTS IN DIAGNOSIS AND PROGNOSIS

Attempts to determine the extent to which formal tests are valuable in diagnosing individual difficulties or in predicting success in English have employed two criteria—accuracy in composition and English marks. The investigations reported in this section have correlated test scores with these two criteria.

Correlation between scores on formal tests and accuracy in composition.—Willing (255) tested the validity of diagnosing the weaknesses of individual pupils in the formal elements of written composition through an analysis of performance in typical proofreading tests and tests in the recognition of errors. He administered sixteen formal tests differing as to (1) nature of requirements, (2) kind of material, (3) complexity of material, and (4) comprehensiveness. Errors in twelve hundred words of composition per pupil were tabulated and classified under six categories: (1) spelling, (2) capitalization, (3)

punctuation, (4) grammar, (5) sentence structure, and (6) word usage. These data furnished criteria for measuring the reliability of the tests. Willing used an error guide (p. 35) which was the result of his own personal experience in scoring English compositions and of a careful analysis of manuals and handbooks of English usage. Both the compositions and the formal tests were checked by the error guide in order to secure classifications which would permit of detailed comparisons. As a result of correlating test scores with accuracy in composition as represented by the composite scores on the six English categories listed, the author reached the following conclusions. (1) The comprehensive tests in proofreading and in recognition of errors are reasonably good instruments for predicting the average number of formal errors that pupils will make in twelve hundred words of composition. (2) There is little difference in the value of the different types of tests for this kind of prediction. (3) Unweighted composite tests in punctuation, sentence structure, and word usage show higher validity than do any of the single tests representing the same categories of errors. (4) The tests seem to be of doubtful value in forecasting the specific kinds of errors individual pupils will make in composition-writing (**255**: 33).

A study (**113**) of the correlation between scores on Trabue's Completion Test Language Scales and composition ability as measured by the Hillegas scale showed a high correlation between the abilities required in language and those required in written composition.

Correlation between scores on formal tests and teachers' marks.—Cade (**37**) found the correlation between scores on the Diagnostic Tests in English Composition by Conkling and Pressey and marks in English to be .511 ± .03 when Form C of the tests was used and .47 ± .033 when Form D was used. He concluded that it is possible in general to predict student ability in first-year college English through the use of these tests.

Flemming found that scores on Briggs's English Form Test correlated with scholarship in English as follows: with marks in grammar, .47; with marks in composition, .46.

> The elements measured by Briggs's English Form Test doubtless are too few in comparison with the total number of factors involved in skill in grammar or composition to permit a marked correlation [**78**: 119].

Fretwell (**80**) found a very low correlation between scores on Trabue's completion tests and marks given by four teachers on the first year of junior high school work. The correlations ranged from .16 to .31 on the different forms of the test in 1916 and from .09 to .29 in 1917. The correlation between the composite score on eleven standardized educational and psychological tests and junior high school marks was .57 in 1916 and .55 in 1917. The findings indicate that success in school is dependent on a wide range of abilities and not on a single ability as measured by the completion tests.

Pressey (**179**), concluding that ability in English composition is a complex involving a number of factors, constructed tests to measure general ability by analyzing the complex situation and combining the results of the analysis. A trial use of the tests in spelling, grammar, and punctuation indicated that the correlation of the combined score with teachers' pooled estimates of composition ability was high.

These studies lead to the conclusion that tests which are composites of many factors are valuable in predicting success in English composition and that tests of single factors are too limited in scope to be of value in prediction.

(2) MERITS OF THE METHODS EMPLOYED IN FORMAL TESTS

Comparison of proofreading tests, tests requiring choice of right or wrong forms, and completion tests.—Leonard attempted to discover the effect of different methods of securing pupil reactions through the use of the University of Wisconsin Test of Grammatical Correctness. He gave to 1,850 pupils three tests, each made up of twenty-one sentences, in which were included both the right and the wrong form (Test Alpha), the wrong form alone (Test Beta), and merely a blank to be filled in (Test Gamma). He found "(1) correlations so low that the tests cannot be said to measure these abilities evenly: $.482 \pm .016$ for Alpha with Beta, $.603 \pm .013$ for Beta with Gamma, $.677 \pm .011$ for Alpha with Gamma; (2) most remarkably uneven results on individual sentences . . . . for 750 pupils' scores on these tests taken in different orders to equalize chances; obviously nothing is proved about the effect of displaying wrong forms in tests, and further studies are needed to explain these figures; and (3) a reasonably clear indication that Test Gamma—the completion type—is on the whole the steadiest measure of the abilities here considered,

since the scores on individual sentences by it vary the least from the average sentence scores on all three tests; the Alpha deviations are so prevailingly minus that there is strong probability that the guessing factor makes this type of test too easy, and the large total of deviations on Beta, with the fact that in many sentences perfectly correct forms were corrected in place of the wrong one (by 21.3 per cent of the pupils in one sentence), makes this test apparently less steady in indication than the completion type" (**132**: 432).

Interrelations of the formal tests.—Willing attempted to determine how well the major tests—Diagnostic Tests in English Composition by Pressey and others, the Cross English Test, Briggs's English Form Test, and Willing's General Correction of Error Test[1]—agree with one another as to total scores (**255**: 42). Willing's General Correction of Error Test correlated more closely with the combined tests (.78) than did any other of the major tests; the Pressey test was second (.72); the Cross test, third (.70); and the Briggs test, fourth (.66).

The four tests studied for sentence structure employ four different methods of measurement (**255**: 43). The Conkling and Pressey Diagnostic Test in English Composition—Sentence Structure requires identification of a faulty sentence in a group of correct forms; the Cross English Test, the checking of a number of wrong forms; Willing's General Correction of Error Test, the recognition and correction of errors in consecutive matter; the Wisconsin Tests in Sentence Structure, the correction of the same kind of error in a number of faulty sentences. The correlations among the four tests are moderately low, ranging from .40 to .48. However, a composite of three of these tests, as has been reported elsewhere (p. 125), showed a correlation of .81 with the "criterion"—the composite score on the six English categories named on pages 124–25.

> The conclusion to be drawn is that each of these tests measures a different but important part of what we are calling sentence-structure ability and that combined they constitute a very promising prognostic test [**255**: 44].

A similar study was made of the grammar-usage tests, and a similar conclusion was reached.

Ruch and Stoddard (**191**) obtained intercorrelations among the

[1] This test is not published separately but is reproduced in an article (**256**: 89).

various language-grammar tests in order to show the extent to which different tests are measuring the same function. Their findings are presented in Table XXXIX (191: 106).

Comparison of composing and correcting tests in English usage.—Willing (256) gave three English tests to four experimental and four control sections of ninth-grade pupils. The first two tests required an original composition and the reproduction of a story. The third test required the correction of a faulty composition containing 180 errors of 85 different kinds. The same tests were given eight weeks later. One purpose of this experiment was to compare the relative value of

TABLE XXXIX

INTERRELATIONS OF LANGUAGE-GRAMMAR TESTS

Tests	*r*	*N*
Briggs's English Form Test vs. Kirby Grammar Test (sentences)	.56	80
Briggs's English Form Test vs. Kirby Grammar Test (principles)	.63	80
Charters Diagnostic Grammar Test vs. Kirby Grammar Test (sentences)	.48	80
Charters Diagnostic Grammar Test vs. Kirby Grammar Test (principles)	.62	80
Pressey-Bowers capitalization vs. Conkling-Pressey grammar	.44	99
Pressey-Bowers capitalization vs. Pressey-Ruhlen punctuation	.47	99
Conkling-Pressey sentence structure vs. Pressey-Bowers capitalization	.40	99
Conkling-Pressey grammar vs. Pressey-Ruhlen punctuation	.66	99
Conkling-Pressey grammar vs. Conkling-Pressey sentence structure	.63	99
Conkling-Pressey sentence structure vs. Pressey-Ruhlen punctuation	.55	99

the two types of tests in revealing weaknesses in the formal elements of composition. The excessive labor involved in the composition tests can be avoided by the use of the test in the correction of errors, since the pupils can check and evaluate their own errors. In economy of time, therefore, the proofreading test is far superior.

Moreover, the test in the correction of errors is a more comprehensive instrument for revealing individual weaknesses in proofreading than is a single original composition or reproduction for revealing weaknesses in the formal elements of composition. In the original compositions and reproductions of sixty-six pupils in the experimental group, only twelve types of errors per pupil were brought to light; on the contrary, the test in the correction of errors showed a median of fifty-nine different kinds of errors either left uncorrected or introduced. The proofreading drill, therefore, is a better means of diagnosing individual weaknesses. Moreover, Willing produced data indicat-

ing that the reliability, both gross and specific, of the test in the correction of errors is greatly superior to that of the composition test.

If Willing is right, those teachers whose major object is to teach formal correctness may profitably substitute tests in the correction of errors for at least some of the compositions which they laboriously and fruitlessly correct. While Willing's data indicate the superiority of proofreading tests as compared with composition tests, they throw no light on the merits of standardized language tests. Another study by Willing (**255**), reported earlier in this chapter, shows that proofreading tests have doubtful value in forecasting the specific kinds of errors pupils will make in writing compositions.

Ranking of language tests as diagnostic instruments.—On the basis of the plan described on page 151, Kelley (**122**) arrived at the following rating of language-usage tests, in descending values, for individual and group diagnosis.

ELEMENTARY-SCHOOL LANGUAGE-USAGE TESTS

1. T. L. Kelley and Others, Stanford Language Usage Test
2. W. W. Charters, Charters' Diagnostic Language Tests
3. W. W. Charters, Charters' Diagnostic Language and Grammar Tests
4. T. J. Kirby, Kirby Grammar Test
5. G. M. Wilson, Wilson Language Error Test
6. S. L. Pressey and H. Ruhlen, Diagnostic Tests in English Composition—Punctuation
7. S. L. Pressey and E. V. Bowers, Diagnostic Tests in English Composition—Capitalization
8. F. R. Conkling and S. L. Pressey, Diagnostic Tests in English Composition—Grammar (or inflected forms)
9. S. L. Pressey, Diagnostic Tests in English Composition (vocabulary, grammar, and punctuation)
10. F. R. Conkling and S. L. Pressey, Diagnostic Tests in English Composition—Sentence Structure
11. D. Starch, Starch's Grammatical Scale A
12. D. Starch, Starch's Punctuation Scale A
13. F. L. Clapp, Clapp's Standard School Tests in Correct English (**122**: 248–49)

JUNIOR HIGH SCHOOL LANGUAGE-USAGE AND GRAMMAR TESTS

1. W. W. Charters, Charters' Diagnostic Language and Grammar Tests
2. T. L. Kelley and Others, Stanford Language Usage Test
4. G. M. Wilson, Wilson Language Error Test

4. W. W. Charters, Charters' Diagnostic Language Tests
5. T. H. Briggs, Briggs's English Form Test
6. T. H. Briggs, Briggs's Analogies Test
7. S. L. Pressey and Others, Diagnostic Tests in English Composition
7. D. Starch, Starch's English Grammar Tests
7. D. Starch, Starch's Grammatical Scale A
7. D. Starch, Starch's Punctuation Scale A (122: 250–51)

Three of the thirteen elementary-school tests were adjudged to have value for measuring the work of an individual; five, group value but not individual value; and two, doubtful value; three were not reported upon in this respect.

Three of the junior high school tests were said to have "individual value," four to have "group value," and two to have "doubtful value"; one was not reported upon.

At best, this classification has very slight significance; the tests are not alike; they were designed for different specific purposes. To compare Briggs's Analogies Test with Starch's Grammatical Scale A is much like comparing a cow and a sheep because they are both animals. To find scale experts themselves willing to participate in such an enterprise has some bearing on the general imperfections of instruments designed to assist in measuring language attainments.

(3) VALIDITY OF THE ANALYSIS OF THE ERRORS IN A SINGLE THEME AS A MEASURE OF COMPOSITION ABILITY

Analysis of the errors in a single theme has been accepted as a valid measure of composition ability. Does a single theme reveal in detail the actual composition ability of individual pupils? Willing (255) estimated the merits of this procedure for diagnosing the weaknesses of individual pupils in the high school. Eight compositions were obtained from each of seventy eighth- and ninth-grade pupils—three original themes, two reproductions, a book review, a written lesson in the social studies or history, and a written lesson in science. The validity of single themes as measures of accuracy in composition was determined through the correlation of single two-hundred-word themes with a reliable sampling of pupils' themes as the criterion. Willing reached the following conclusion.

Single themes, either original or reproductive, in total or category scores correlate much more highly with the composition criterion than do any of the

formal tests. They are, however, too unreliable and limited in error range to be used for thoroughgoing diagnosis [255: 34].

The conclusion from the findings of Willing's study of formal tests and single themes is that diagnosis of formal ability in written composition is impossible except through analysis of a large amount of written work. Since such exhaustive analysis is almost impossible for classroom teachers, there is need for types of tests which will secure in an economical way a reliable measure of pupils' natural writing reactions.

Flemming (78) found that the rating of a single composition by means of the Hudelson scale was not closely correlated with teachers' marks in grammar and composition. She concluded that a single composition is too limited in scope to be valuable in predicting a pupil's success.

4. CONCLUSIONS

The studies to which reference has been made in this chapter seem to warrant certain conclusions and to reveal problems for further investigation.

1. The number of technical difficulties in pupils' speech and writing is small in comparison with the lists presented in traditional courses of study and textbooks. Errors in oral English are predominantly found in relatively few classifications. Verb errors constitute from 40 to 60 per cent of all errors in this field. The vital fact, however, too often ignored by "error-analysts," "curriculum-builders," and "minimal-essentials seekers" is that any attack on verb errors, for example, at all systematic or effective involves nearly the whole range of grammar. This neglects, of course, the doubtful value of sheer drill on specifics, such as "have gone" to eradicate the common error "have went," without any reference to the language principle involved. Approximately the same comments apply to errors in written English.

2. No other technique of investigation reported in this monograph is as loose, inaccurate, and unreliable as the techniques employed in "collecting" errors in oral English.

3. Investigations concerning requirements as to form in written work have tested only a relatively small part of the most significant

expressional difficulties, such as mechanical weaknesses in sentence structure.

4. A considerable share of the errors collected and statistically treated are not errors in the true sense; many are idioms; many are acceptable English (p. 80). Studies need to be made in the light of recent linguistic investigations to discover what language errors really are.

5. Most of the investigations have ranked errors according to frequency only. Hereafter studies of errors must follow the "error-quotient" procedure (p. 107) if they are to be considered valid. Moreover, frequency of use in relation to the number of words must be considered as well as frequency of errors in relation to frequency of use.

6. Language items which cause pupils the greatest difficulty are usually the items which persist (p. 103). The persistence of errors seems to indicate the ineffectiveness of present methods of teaching English. Further inquiries which consider persistence of errors in the light of specific teaching procedures and in terms of the difficulties encountered by pupils at different grade levels are imperative.

7. Need exists for investigation into the grade placement of the different language items in order to determine the point at which drill brings the most effective results and the amount of reteaching at different levels that is necessary in establishing desirable habits.

8. The most hopeful note of this phase of investigation is the hypothesis, awaiting additional verification, that each pupil at any level has a relatively constant "vocabulary of errors." If this hypothesis is true, the standardization of language work is not entirely beyond anticipation.

9. At present the value of the testing movement as applied to correct and incorrect language forms appears to rest on one highly questionable assumption, namely, that a child's ability to recognize an error and to correct it is indicative of his own present or future use of the particular form.

10. Composites of formal tests have been found useful as survey or group-measuring instruments in predicting pupils' success in English composition, but these tests have been found of doubtful value for diagnosing the specific items difficult for pupils in expres-

sion (p. 125). Further studies are needed to determine economical methods of diagnosing pupils' difficulties in writing so that the laborious analysis of technical errors in many compositions may be avoided.

11. Language-usage investigations are in accord with two fundamental principles: (1) instructional emphasis should be placed on the immediate needs of pupils as contrasted with deferred needs; (2) the remedial work which follows revelations of language weaknesses must be largely, if not exclusively, individual.

CHAPTER IV

INVESTIGATIONS IN THE FIELD OF WRITTEN COMPOSITION

General types of investigations.—The studies which have dealt primarily with the measurement of written composition are here classified in two divisions: (1) experiments associated with the derivation of measuring instruments and their reliability and (2) studies designed to learn the values of teachers' judgments when unaided and when aided by the use of objective standards.

1. ATTEMPTS TO ESTABLISH COMPOSITION STANDARDS

Imperfect as the scales for measuring compositions are, they have undoubtedly rendered great service in calling the attention of teachers and of schools to the necessity of appraising accomplishments in written composition by something better than guesswork. At least, the resulting measurements have done something to answer the questions: How well do children write? How well should children write at different grade levels? Only a few of the more important studies are here summarized. Every survey, large or small, has made some use of composition measurements.

a) DERIVATION OF SCALES FOR MEASURING COMPOSITIONS

The purposes of measuring compositions.—Attempts to devise scales for the evaluation of English compositions with some degree of objectivity have largely paralleled the survey movement. At least three of the well-known composition scales grew directly out of surveys, and all scales which have attained prominence have done so because of widespread use in city and state surveys. At any rate, if comparisons in composition achievement are to be made between pupils, class groups, schools, or school systems, some common standard of measurement is indispensable. Moreover, as a later discussion shows (pp. 158–61), the exceedingly great variability of teachers' judgments in appraising pupils' themes has resulted in widespread injustice in innumerable classrooms.

In addition to the recognition of the need of common standards

in order to make comparisons possible and of the need of minimizing injustice caused by unequal grading of pupils, several minor purposes have been in the minds of scale-makers. Briefly stated, the uses and values claimed for scales are that they enable supervisors (1) to compare teachers, classes, schools, and school systems; (2) to determine the values of different types of instruction; and (3) to determine the amount of time to devote to different phases of the subject. They enable teachers (1) to judge more accurately the work of pupils, (2) to measure at intervals the improvement made by pupils, (3) to compare pupils with established standards, (4) to classify pupils in ability groups, and (5) to evaluate various methods of instruction. They enable pupils (1) to become acquainted with definite standards, (2) to see the relative importance of different phases of expression, and (3) to motivate their work by reasonable rivalry.

Criticisms of measurements in composition.—Probably no phase of objective measurements of school processes and products has been more sharply criticized than the composition scales and all they stand for. The major criticisms are summarized and discussed in the following section (pp. 152–57), which treats studies designed to test the validity of composition scales. The minor criticisms directed against each scale are presented in this section with the discussion of the origin of the scale.

Composition scales in chronological order.—The most important scales for measuring compositions are listed in chronological order in Table XL.

Early measuring instruments.—Bliss (**18**) reported an early attempt (1912) to secure objective measures for English compositions. His plan as worked out in three school systems was to give a reproduction test early in the school term and a similar test at the end of the term. Five papers selected as representing five levels of ability and numbered from 1 to 5 in the order of their excellence constituted an informal scale used in measuring the other papers in the investigation. With such a scale, all pupils in a given grade were judged by the same standards, and progress was determined by comparison of the results of the two tests for a given school or grade.

As early as 1910–12 Hillegas (**99**), following Bliss as a pioneer in the field of measuring compositions, began to construct a scale by

TABLE XL

SCALES FOR MEASURING COMPOSITIONS

Scale	Author	Date	Grades	Publisher
Hillegas Scale for the Measurement of Quality in English Composition by Young People	M. B. Hillegas	1912	II–XIII	Teachers College, Columbia University
Courtis Standard Research Tests in English Composition	S. A. Courtis	1914	II–XII	S. A. Courtis, Detroit, Michigan
Scale for the Measurement of Merit	C. S. Wolfe	1914	IX–XII	H. M. Ives & Sons, Topeka, Kansas
Scales for the Measurement of English Composition	F. W. Ballou	1914	IX–XII	Harvard University Press
Thorndike's Extension of the Hillegas Scale for the Measurement of Quality in English Composition by Young People	E. L. Thorndike	1915	V–XIII	Teachers College, Columbia University
Willing's Scale for Measuring Written Composition	M. H. Willing	1916	IV–IX	Public School Publishing Co.
Nassau County Supplement to the Hillegas Scale for Measuring the Quality of English Composition	M. R. Trabue	1917	IV–XII	Teachers College, Columbia University
Scale for Measuring the General Merit of English Composition in Sixth Grade	F. S. Breed and F. W. Frostic	1917	VI	*Elementary School Journal*, XVII (January, 1917), 307–25
The 1920 Scale for the Measurement of Technical Achievement	C. S. Wolfe	1920	II–XII	H. M. Ives & Sons, Topeka, Kansas
Hudelson English Composition Scale	E. Hudelson	1921	IV–XII	World Book Co.
Scales for Measuring Special Types of English Composition	E. E. Lewis	1921	IV–XII	World Book Co.
Van Wagenen English Composition Scales	M. J. Van Wagenen	1923	IV–XII	World Book Co.
Hudelson Maximal Composition Ability Scale	E. Hudelson	1923	I–XVI	Public School Publishing Co.
Hudelson Typical Composition Ability Scale	E. Hudelson	1923	I–XVI	Public School Publishing Co.
Clark Letter Writing Test	F. L. Clark	1926	VI–XII	Public School Publishing Co.
National Scales for Measuring Compositions	H. R. Driggs and A. F. Mayhew	1927	VII–IX	University Publishing Co., Chicago, Illinois
Composition Standards	A. Abbott	1927	VII–XII	Teachers College, Columbia University

scientific methods in order that standards of achievement might be determined on a basis better than mere opinion. Hillegas asserted that such standards are needed to define educational requirements in order that a mark of "good" or of 75 or any other conventional rating may have approximately the same merit when assigned to different pupil products. Following the examples of still earlier investigators in other subjects,[1] Hillegas constructed the Hillegas scale, consisting of ten samples of compositions, the merits of which were determined by five hundred judges. The values assigned to the various samples were supposed to express their quality in the same sense, although not as accurately, as millimeters express the length of lines. Hillegas made no attempt to define composition merit beyond the assumption that it is that quality which competent persons commonly consider as merit.

Locating the zero point in English composition.—Experiment in locating the zero point, at which a composition may be said to have no merit, seems to have been begun by Hillegas and Thorndike (**99**: 342) in 1912 by combining the judgments of twenty-eight experts in English. While no one judge had any deliberate criterion for the point of composition quality at which positive merit begins, much agreement existed among the individuals and almost positive agreement in the cases of the averages of the three groups of judges: (1) nine men of special literary ability, (2) eleven gifted teachers, and (3) eight psychologists. The central tendency of the twenty-eight judges located the zero point of merit in the composition-writing of young people as equivalent to the first sample of the Hillegas scale.

Method of selecting the samples in the scale.—Hillegas used the method of selecting and arranging the samples in his scale that has been followed with modifications by all later workers. From seven thousand compositions he chose eighty-three which seemed to him

[1] *a*) J. M. Rice, "The Futility of the Spelling Grind," *Forum*, XXIII (April and June, 1897), 163–72, 409–19.

b) Cliff W. Stone, "Arithmetical Abilities and Some Factors Determining Them." Teachers College Contributions to Education, No. 19. New York: Teachers College, Columbia University, 1908. Pp. 102.

c) S. A. Courtis, "Measurement of Growth and Efficiency in Arithmetic," *Elementary School Teacher*, X (October and December, 1909), 58–74, 177–99.

d) E. L. Thorndike, "Handwriting," *Teachers College Record*, XI (March, 1910), 83–175.

to vary from the poorest to the best by small degrees of quality. He utilized the judgments of almost five hundred persons in various procedures designed to arrange these samples in the order of merit, applying the principle that had been used by Thorndike:[1] Differences that are equally often noticed are equal unless the differences are either always or never noticed. The theory of probability, the normal surface of probability, was applied to the judgments of the cooperating persons. Hillegas assumed that a large number of judgments as to the quality of a composition will be distributed symmetrically on either side of its true value—that just as many judges will overestimate its value as will underestimate its value and that large errors in either direction will balance each other and be much less frequent than small errors (**239**: 69). Hillegas defined a unit in his scale "as that difference [between two samples] which 75 per cent of the judges are able to distinguish" (**99**: 347). Trabue defined a unit of quality as "such a difference in quality as was recognized by exactly 75 per cent of the original judges and not recognized by the other 25 per cent" (**239**: 55). Hillegas finally, by successive reductions in number, selected from the original samples the ten which compose his scale, ranging from the value of 0 for the first sample to the value of 937 for the tenth, on a scale of 1,000.

Criticisms of the Hillegas scale.—The major criticisms that have been made against the Hillegas scale may be enumerated here because later workers have attempted to refine their scales in the light of the shortcomings of this scale. (1) The scale measures too varied a product. The samples are written on a variety of topics; one is an artificial business letter; one is a book review; four are character sketches; one is an argument; one is a description; and two are expositions. (2) The samples were not written under normal school conditions; nor were the conditions uniform or carefully controlled. (3) The samples, some of them less than ten lines long, are too brief to test sustained power or skill in arrangement of ideas. (4) The compositions are formal and bookish; they contain no conversation and but faintly resemble the pupil products most likely to be compared with them. (5) Each step on the scale is represented by only one

[1] Edward L. Thorndike, "Handwriting," *Teachers College Record*, XI (March, 1910), 87–88.

sample, whereas several samples in the middle of the scale would facilitate the teachers' comparisons. (6) The intervals between the steps on the scale are quite unequal, 1.83 between Samples 1 and 2 and .77 between Samples 3 and 4. (7) The scale makes no distinction between form of expression, merit of thought, and organization of thought.

First modification of the Hillegas scale.—In preparing the Thorndike extension of the Hillegas scale (235), Thorndike, with the cooperation of 515 judges, selected from several thousand compositions twenty-nine samples representing fifteen degrees of merit and extending within the same range of values as those of the Hillegas scale. Seven of the samples of the Hillegas scale were retained, and two business letters, six book reviews, three character sketches, and samples of the four forms of discourse were added. Thorndike's improvements consisted of the substitution of pupil products for artificial samples, an increase in the number of samples in the middle range of the scale, and the use of somewhat longer themes. However, the variations in the intervals between the successive steps are but slightly reduced; no distinction is made between form and content; and the composition products represented by the samples are even more varied than are the Hillegas samples.

The Nassau supplement to the Hillegas scale.—Trabue (239) followed Thorndike in the endeavor to remedy alleged weaknesses of the Hillegas scale. He used 5,500 compositions written by pupils in the Nassau County (New York) survey of 1916, all of which were assigned values on the Hillegas scale. By this process he selected twenty-eight samples and added two others for the upper end of the scale from the Thorndike extension (235). To secure a final rating of the thirty compositions, 139 judges co-operated, the median rating on the Hillegas scale being used to determine the final order of the nine samples which compose the Nassau scale.

Trabue pointed out a serious weakness in the Hillegas scale (239: 69–75) and attempted to remedy it. Hillegas assumed that the variability of judgments on one composition will be exactly equal to the variability of judgments on another composition. Showing that this assumption is untrue, Trabue insisted that compositions selected for a scale must be samples on which competent judges agree very close-

ly and that a perfect composition scale can be secured only by training a group of judges until additional training will not result in greater agreement among them. This insistence on trained judges constituted a major contribution to scale construction and established what has now become a reliable standard for estimating the accuracy of construction of all composition scales.

Trabue also refined the Hillegas scale in four minor respects. (1) He substituted genuine pupil products for artificial samples. (2) He made each sample sufficiently long so that appreciation of its quality is easily obtained by a reader. (3) He made all samples narrative in type similar to compositions commonly written by pupils. (4) He made the intervals between values less unequal than are the intervals in the original scale.

Trabue, then, in the Nassau County supplement, the most widely used of all the scales, attempted to remedy several major defects of its predecessors. However, his scale contains only one sample at each of the different levels and fails to distinguish directly between substance, organization, and accuracy.

Hudelson's first scale, which grew out of the Virginia survey of 1919, was also an attempt to improve on the Hillegas scale. Hudelson assembled 887 compositions, all written by ninth-grade pupils on the same topic, "The Most Exciting Ride I Ever Had." From these compositions one hundred were selected by means of the Nassau supplement as a standard. They were arranged in the order of merit by ninety-six teachers who had been trained in the use of scales. Hudelson's scale consists of sixteen compositions, of which eleven, ranging in value from 2.0 to 7.0, are productions of pupils in Virginia; the next four were taken from Thorndike's 150 samples; the last one was taken from the Thorndike extension of the Hillegas scale. The chief merits of this scale are that most of the samples are pupil productions and the samples are presented with greater regularity of gradation. Its chief defects are that all the samples are not on the same subject and no distinction is drawn between form, substance, and organization.

Two types of scales.—The earliest instruments designed to measure general merit pay no attention to the usual distinctions between the various forms of composition. They are based on the assumption

that all forms—letters, narratives, expositions, etc.—possess in greater or less degree a general composition "quality." To the criticism that it is impossible to compare a sample of narration with a sample of description, Hillegas replied: "The answer is that people actually did do it. Of the 450 people who have judged these samples [on the Hillegas scale], not more than three have offered any objection on the score that they could not compare the samples" (**99**: 384). Trabue and Hudelson, on the contrary, began the work on a second type of scales, designed to measure the quality of special types of composition, a characteristic found in all the later scales.

Breed (**27**) surveyed English instruction in the sixth grade in ten cities in Michigan. To 481 pupils in this grade was read the first part of a story called "The Picnic," which the children finished as their compositions within a twenty-minute period. Thus were secured 481 compositions on the same subject and written under typical school conditions. From these, seventy samples of ten levels of excellence were selected, representing the total range of language ability for the grade. The seventy samples were scored by twenty judges, and from these seventy samples twenty-five were selected; these in turn were ranked in the order of merit by twenty special teachers of English, using the principle that a unit of difference is the difference which 75 per cent of the judges are able to distinguish and 25 per cent of the judges fail to distinguish. The zero point was established separately by twenty judges in much the manner described by Hillegas (**99**: 342). From this zero point the twelve samples selected for the scale increase in value at approximately equal intervals: 0.0, 0.2, 1.7, 2.5, 2.7, 3.7, 4.7, 5.7, 7.0, 8.0, 9.0, 9.7. To be noted is the fact that in the middle range, within which most sixth-grade compositions would fall, the steps in the scale are exactly 1.0 point apart.

Breed's contributions consisted of the use of one grade; the use of one subject for all the compositions, producing uniformity of content; the premium placed on free writing through the topic suggested for the compositions; and the approximately equal steps in the scale.

The Harvard-Newton scales.—Ballou (**13**), the first to make separate scales for special forms of composition, assembled a large number of compositions written by eighth-grade pupils and utilized

the judgments of twenty-four teachers in selecting samples for four scales, one each for narration, description, exposition, and argument. Six compositions constitute each scale, the theme considered best by the composite of judgments being arbitrarily accorded a value of 95, or A, indicative of the highest grade of composition to be expected of secondary-school pupils. As the other five samples of each scale were selected compositions approximating the B, C, D, E, and F of the usual grading system, or 85, 75, 65, 55, and 45, as even more generally used. Endeavor was made to have the sample at the 65 level, for instance, vary from the sample at the 75 level by the same percentage of excellence as the 65 varied from the 55. Naturally, this equality of variation was only approximated.

The chief merits of the Harvard-Newton scales are: (1) They measure respectively only one form of discourse. (2) They are compositions of pupils and as such resemble closely the products they are supposed to measure. (3) They conform closely to the grading practices to which teachers are accustomed. (4) In addition, these scales offer, after each sample, lists of merits and defects and comparisons to aid the teacher in appraising the samples, a feature that is of distinct value. It is fair to say that many investigators consider quite unimportant the distinctions drawn between the four forms of discourse.

Courtis, who used the Hillegas scale in the Gary survey, made a very helpful analysis.

> The development of ability in English composition passes through three phases. At first there is the struggle to master the mere mechanics of expression, the spelling of words and their arrangement in the conventional order. Then follows a second stage in which the efforts of the person writing are expended mainly upon organization of subject matter, the selection of the details to be expressed, and their organization into connected discourse. Finally, there is the stage of development of literary merit in which choice of words and the selection and organization of subject matter cease to be mechanical and become artistic [as indicated in the following analysis]. Of course, no hard and fast lines can be drawn between one phase of ability and another, but the main characteristics of each of the three stages of development are well marked and serve to fix the limits of value within which a given composition must fall [61: 244].

ANALYSIS OF THE HILLEGAS COMPOSITION SCALE

A. Mechanics (Difficult To Read)	B. Organization (Tiresome To Read)	C. Literary Merit (Interesting To Read)
0–9 Meaning uncertain after study	30–39 Mere succession of sentences loosely joined	70–79 Interesting material marred by imperfect choice of words
10–19 Meaning decipherable but with difficulty	40–49 Disconnected sentences with much irrelevant matter	80–89 Well-selected material expressed in well-chosen words
20–29 Meaning not apparent on first reading	50–59 Connected sentences: few mistakes, uninteresting material	90–99 Exceptional content and quality
	60–69 Well organized but commonplace in content	

This analysis should be read as follows: If a composition, because of its gross errors in mechanics, proves difficult to read and understand, it falls in the first division of the scale (0–29). If the meaning is not clear after repeated attempts to decipher the composition, the value assigned it should be between 0 and 9 points, depending on the amount which can be read. If the meaning is decipherable, but with difficulty, its quality should be rated from 10 to 19 points, and so on [61: 245].

This suggestive analysis of the Hillegas scale unquestionably shows the relation between the mechanics of writing, the organization of subject matter, and the quality of literary merit. However, the three stages of growth in written expression are by no means sharply separated; in fact, the most difficult problems faced by teachers of composition have to do with pupils whose advance toward the third stage is hindered or prevented by continued inabilities in the first and the second stages. Moreover, teachers of composition are in general so thoroughly imbued with the necessity of improving the work of their pupils in the first stage that their protracted drills therein have all too frequently inhibited progress in the second or third stage. Unfortunately, only a few investigators—Courtis (61), Colvin (55), and Colvin and Meyer (56), whose attempts are recorded on pages 189–92—have tried to secure evidence

on the relation between substance, organization, and form in expression, and a still smaller number—Kimmel (**123**) (pp. 225–26) and Courtis (**60**: 385–87)—have attempted to investigate the effect on the inventive ability of pupils of emphasizing form. Willing was the first to construct a scale which attempts to distinguish between form and substance.

The Willing scale.—Willing made his scale in connection with the Denver survey, asking pupils in Grades IV A–VIII A, inclusive, in nineteen representative schools to write compositions on the subject "An Exciting Experience." Without the co-operation of judges he then constructed a scale somewhat more crude in a scientific or statistical sense than are the Hillegas and the Thorndike scales. The scale contains eight samples ranging from the value of A (85–94.9) to H (15–24.9). The scale is distinctive in one feature: it definitely attempts to distinguish between content and form. Accompanying each sample is a statement of the number of errors in spelling, punctuation, and syntax per hundred words; such errors increase in number from five per hundred words for the B theme to thirty per hundred words for the H theme. A teacher using this scale assigns two scores, one for errors as indicated and one for "story value," for which no criteria are presented. If a composition has a high score in story value and a low score in form, a score between the two is approximated, but "no paper is marked above 70 which does not have good story value and technical excellence; nor is a paper marked below 40 which does not lack both of these qualities" (**254**: 198). The Willing scale, generally considered arbitrary and unscientific, made one very significant contribution to scale-making: it distinguishes between form and substance as separate items for judgment.

Thought content, rhetorical structure, and correctness independently evaluated.—Van Wagenen (**244**) selected three sets of two hundred high-school themes that fell at five-point intervals in a scale of general merit. These were submitted to teachers of English whose combined judgments reduced the number of expository themes to fifty-five, the number of descriptive themes to sixty-two, and the number of narrative themes to fifty-nine. These were then arranged in the order of excellence by the central tendency of the judgments of forty-one experts into exposition, description, and narration scales of

fifteen steps each. The considerations in distributing the themes making up the three scales were as follows:

Thought Content

In grading for thought content, take into consideration:

For exposition:

- Adherence to subject
- Interest of the treatment
- Continuity of thought
- Clearness of perception
- Discrimination in selection of words

For description:

- Maintenance of point of view (both physical and mental)
- Vividness of picture
- Emotional reaction
- Vigor and originality of diction

For narration:

- Sufficient explanation of the situation
- Naturalness and appropriateness of dialogue (if used)
- Clear progress of narrative to a definite conclusion
- Use of suspense or surprise
- Descriptive touches
- Adequacy and variety of diction

Sentence and Paragraph Structure

In grading for sentence and paragraph structure, take into consideration:

- Unity
- Coherence
- Emphasis
- Variety and complexity of sentences

The writer who uses many complex sentences shows a greater maturity of mind than the one who uses very simple or unnecessarily compounded sentences, even though, from the very fact of the greater complexity, he may make more actual mistakes in structure.

Mechanical Errors

In grading for mechanical errors, take into consideration:

- Spelling
- Punctuation (only cases of actual error, not cases where punctuation is optional)
- Capital letters
- Grammar (only cases of actual error, not matters of preference)
- Paragraphing (only cases of actual error, not matters of preference)

Here, too, one must take into consideration the range of vocabulary and complexity of expression. For instance, it is a more fundamental error to misspell "receive" than to misspell "psychological." Punctuation of very simple sentences would give less opportunity for error than that of complicated sentences or conversation [244: 484–85].

Van Wagenen recognized a pertinent fact overlooked by other scale-makers, namely, that content, structure, and mechanics are three very different characteristics of a composition.

Each quality . . . . must be considered as a distinct scale in itself. Only as a matter of accident would 80 in thought content, for instance, be the same distance from the arbitrary zero point selected as 80 in mechanics. . . . . Hence, simply adding together the three values assigned for the three qualities of a theme and dividing the sum by three will not be likely to give a measure of the general merit of a theme that is much, if any, more accurate than would be the measure of a liquid obtained by adding together its density, its temperature, and its volume, and then dividing the result by three [244: 490–92].

The three scales each have three distinct sets of values, and all themes are to be scored three times.

From a series of studies Van Wagenen (244: 495) derived evidence to show that the three qualities of excellence—content, structure, and mechanics—in one type of composition may be considered equivalent to the same three qualities in another type of composition; that is, structure in narration is comparable to structure in description, and the separate qualities approximate the general quality. His conclusion in this respect would indicate that separate scores on the Van Wagenen scale for thought, rhetorical structure, and correctness are unnecessary. Dolch's evidence is to the contrary, namely, that general quality of compositions cannot be predicted from any one separate quality (69: 543–44).

The first attempt to construct a scale of ability in English composition without considering mechanics was made by Leonard (130). He pointed out the difficulty of measuring pure composition quality apart from mechanical correctness when scoring by the Hillegas, the Nassau County, the Willing, or the Harvard-Newton scale. Themes which are as good as those at the upper limits of these scales in composition quality but bad in matters of form and themes poor in composition quality but formally correct present the real difficulty in judging. In order to secure judgments on pure composition quality,

themes of pupils in Grades IV–IX, inclusive, were collected and corrected for spelling, sentence punctuation, manuscript form, and purely conventional errors. From forty-eight themes graded by competent judges on the basis of the Nassau County scale, samples were chosen for the final scale. No scientific investigation has been made of the feasibility of scoring by such a scale themes which contain errors in form.

Maximal and typical composition scales.—In 1923 Hudelson (108) constructed scales which appear to include most of the features of excellence found in earlier scales and to embody one or two distinctive contributions. Hudelson endeavored to make a scale which would enable teachers to learn the maximal writing capacity of their pupils, that is, to discover the best writing of which the pupils are capable. Only thus can justice be done in assigning pupils to different ability groups for differentiated instruction. Equally desirable is a composition scale which will help to discover a pupil's average capacity, that is, to determine on the basis of one composition the level of excellence a pupil might be expected to achieve on the average if he wrote many compositions.

With this objective in mind, Hudelson rightly decided that the effects of various composition assignments on the pupils themselves ought to be considered.[1] Earlier composition scales had been based on arbitrarily chosen topics; no one knew whether the pupils' reactions stimulated by those topics called forth the children's real writing abilities.

Hudelson gave thirty-two composition topics to 770 pupils in Grades VII–XII, inclusive; the resulting 13,276 themes were scored by an average of eight judges using the Nassau County supplement; 3,575 of the same themes were scored by the Harvard-Newton scales. The judges of each theme included the teacher of the pupil who wrote the composition and seven other trained scorers. Four hundred and eighty-one children wrote on all thirty-two assignments.

The assignments were arranged in pairs; the two members of each pair were intended to be comparable in at least one significant respect. For example, "The Funniest Thing I Ever Saw" was matched with its emotional antithesis, "The Saddest Event of My

[1] For a full discussion see pages 148–49.

Life." This arrangement of subjects by pairs was made for the purpose of discovering by means of correlations the consistency of pupil reactions to the various kinds of assignments. It is desirable to know whether the quality of children's themes on one topic is indicative of the quality of the compositions they would write on comparable assignments.

The grade achievement expressed in terms of the median scores of the pupils on the thirty-two assignments is represented in Figure 1 (**108**: 67) by the unbroken line. So close to this unbroken line as to be approximately identical with it is the line which represents the median scores of the children on compositions written on "Reproduce 'A Snowball Fight on Slatter's Hill,'" a story which was read to them and which they reproduced. From the close similarity of the two records grade by grade, Hudelson concluded that the foregoing topic will elicit from children a composition which is "typical" of their work on many assignments. The topmost line in Figure 1 represents the median scores by grades on compositions written on the topic "How I Learned a Lesson"; that is, this topic elicited from the pupils their best work; its superiority is more than half a step on the Nassau scale. Hudelson concluded, therefore, that compositions written on the topic "How I Learned a Lesson" are most likely to elicit from the average pupil his maximal ability. Of course, he refers to the superiority of this topic only as compared with the thirty-one; there may be topics which will evoke still more meritorious responses.

With this careful preparation, Hudelson constructed two scales of thirty-two samples each—his so-called "Maximal Composition Ability Scale," the compositions written on the topic "How I Learned a Lesson," and his "Typical Composition Ability Scale," the compositions written on the topic "Reproduce 'A Snowball Fight on Slatter's Hill.'" Fifty themes on each topic as evaluated by the eight original judges were selected as representing varying degrees of composition merit. The hundred themes were then scored by two hundred teachers using the Hudelson Virginia supplement. One hundred of the judges scored the themes in one order; one hundred, in reverse order. Eighteen themes, ranking in values assigned by the two hundred teachers 1, 2, 3, 4, 5, 6, 7, 8, and 9 (several samples of equal

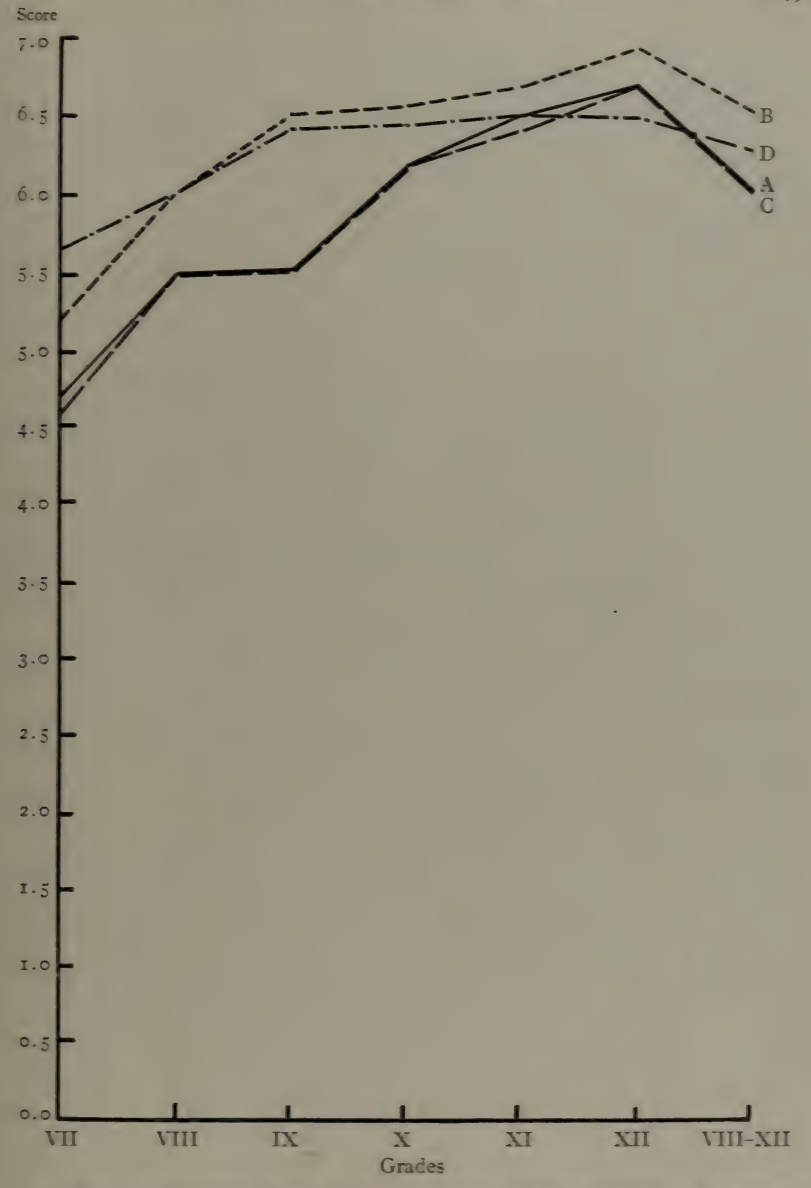

FIG. 1.—Comparison of median scores by grades on all assignments with median scores by grades on "maximal" assignment, "typical" assignment, and one "atypical" assignment (A, all assignments; B, "maximal" assignment; C, "typical" assignment; D, "atypical" assignment).

value at the 3, 4, 5, 6, and 7 levels), were selected for the scale, the values expressed in terms of the Hillegas scale.

These scales apparently have only one of the weaknesses of the earlier scales; they do not distinguish between content, structure, and form. It will be recalled that Courtis insisted (**61**) that the Hillegas scale—and therefore all its successors—indirectly considers these separate elements (pp. 142–43).

A very pertinent comment has been made concerning the reproduction theme used by Hudelson in his Typical Composition Ability Scale.

> Wiswall [**261**] . . . . found twice as many errors in sentence separation by percentage and three times as many by count in reproduction as in any other type of composition. A supplementary study showed exactly similar conditions for the use of the very assignment which Professor Hudelson includes as a typical-ability subject. Reproduction may get standardized and uniform results, but it is not composition in the sense of developing or testing power of organization. Since it also apparently breeds the very type of sentence error we are trying to get rid of, it seems reasonable to suppose that it should not be confusedly used as composition.[1]

The Lewis scales.—Lewis (**135**) constructed five scales—one for simple narration, two for social letters, and two for business letters. For the narration scale he selected thirty-eight samples from 8,654 compositions written by pupils in Grades IV–XII in fifty-four school systems on the topic "One of the Most Exciting Experiences I Ever Had." He utilized the sample from the Nassau supplement with the value of 0.0 and the best sample (value, 9.0). The forty samples were ranked by 175 judges using the Thorndike extension of the Hillegas scale. The relation of each sample to every other was mathematically computed. When completed, the scale contained seventeen samples ranging from 0.0 to 9.0. Lewis' other scales similarly constructed are composed of the same kinds of materials they are intended to test; they have several samples at the steps lying near the middle range, and the intervals between the steps are more nearly equal than are the intervals in earlier scales and are more finely divided.

[1] Dudley H. Miles and Sterling A. Leonard, "Research in High School English," *The Development of the High-School Curriculum*, p. 313. Sixth Yearbook of the Department of Superintendence. Washington: Department of Superintendence of the National Education Association, 1928.

Attempt to rank composition scales in the order of their value for individual measurement.—Using the consensus of opinion of seven expert judges working independently, of whom he himself was one, Kelley endeavored to determine the best standardized tests for individual measurement in various school subjects. He submitted such judgments as imperfect evaluations indeed but far better than the judgments of teachers, principals, and superintendents generally. The median ranks assigned by the judges arranged the composition scales in the following order:

ELEMENTARY SCHOOL AND JUNIOR HIGH SCHOOL COMPOSITION SCALES

1. E. Hudelson, Hudelson English Composition Scale
2. M. R. Trabue, Nassau County Supplement to the Hillegas Scale
3. E. E. Lewis, A Scale for the Measurement of the Quality of Simple Narration
4. E. Hudelson, Hudelson Typical Composition Ability Scale
5. E. L. Thorndike, Thorndike Extension of the Hillegas Scale
6. M. J. Van Wagenen, Van Wagenen English Composition Scales
7. F. W. Ballou, Scales for the Measurement of English Composition
7. F. S. Breed and F. W. Frostic, Scale for Measuring the General Merit of English Composition in the Sixth Grade
7. M. B. Hillegas, Hillegas Scale for the Measurement of Quality in English Composition by Young People
7. M. H. Willing, Willing's Scale for Measuring Written Composition [122: 243]

In formulating their opinions, the judges were asked to appraise the value of the scales for estimating the compositions of individual pupils and also their value for estimating group achievement on the assumption that one composition (written in twenty or thirty minutes) is rated by one teacher. On this basis the median judgment was that none of the ten scales has individual value, that eight have group value, and that two are of doubtful value.[1]

Median appraisals by Kelley's judges of eight of the scales (all except the Ballou scale and the Breed and Frostic scale) as senior high school measures resulted in the same order except that the Thorndike scale rose to No. 3 in the order of value and the Lewis and

[1] One judge pertinently remarked that a scale has "value only when the teacher has had practice in the use of scales and is free from constant error. Constant error would render group value of little consequence" [122: 243].

the Hudelson (typical) scales became Nos. 4 and 5, respectively. Seven of the scales were credited with having group value but not individual value; one scale was considered of doubtful value.

One expert in the testing movement declined to join in this evaluation; he believed that tests should be chosen because of their peculiar adaptability to the specific purposes in mind. Therefore, the various tests in a given field should not be compared with one another but should be retained for the measurement of the specific phases each is peculiarly adapted to measure (**122**: 215). Kelley defended his plan of evaluation by a discussion concerning community of function between general intelligence and achievement.

b) MAJOR CRITICISMS OF COMPOSITION SCALES

Several vital criticisms have been made not against details or minor weaknesses in the scales themselves but against their whole conception, construction, and application.

1. *The collective statistical method not suited for opinions and judgments.*—Kayfetz, the most pronounced critic, objected to the application of the collective statistical method to opinions and judgments, especially when such judgments relate to complex products, such as compositions. Kayfetz quotes Tidyman to the effect that the collective statistical method is "limited to facts of quantitative determination. Qualitative facts are beyond its sphere. It is concerned with the what, not with the causes and conditions underlying phenomena. Because of these limitations of nature and purpose, it [the statistical method] cannot *settle* pedagogical questions. Many questions it cannot consider at all. Others it can consider but partially. At best, it contributes only a bit of evidence which is seldom, if ever, sufficient to decide the case."[1] The essence of the criticism is that the statistical treatment of opinions yields qualitative, not quantitative, data.

The reply is that a quality, such as a color, exists in varying shades or degrees of intensity which can be measured quantitatively. In similar manner, the scale-makers say, a pupil's composition has quality that can be estimated quantitatively. As Thorndike has said, whatever exists, exists in some amount and is theoretically measurable.

[1] Isidore Kayfetz, "A Critical Study of the Harvard-Newton Composition Scales," *Pedagogical Seminary*, XXIII (September, 1916), 341.

2. *Scales neglect conditions under which pupils write.*—Kayfetz voiced a second criticism,[1] which must be admitted to have merit. He affirmed that standard tests, scales, and systems of marking consider merely the material results of the pupils' work and entirely lose sight of the conditions under which the work was accomplished. On the contrary, a true investigation must record all the objective and subjective influences that may affect the result. For example, the makers and users of scales ought to take account of such matters as the following but fail to do so: (1) age, grade, sex, nationality, general intelligence, school brightness, capacity for composition work, and social status of each pupil; (2) time of year, time of day, subject of composition, pupil's attitude toward the composition, manner of presentation by the teacher, preparation made by the pupil for writing, whether the composition is based on memory or investigation, and pupil's physical and mental condition.

3. *The contents of the judgments not known.*—A third major criticism voiced by Kayfetz is that scale-makers do not know the contents of the judgments of the various judges; no introspection is made, much less recorded, by the judges at the time they grade and rank the compositions.

4. *The standardization of scales not justified.*—A fourth criticism was made by Brownell (35), who, unlike Kayfetz, based his comments on careful experimentation and voiced them with restraint and dignity. Brownell asserted that Ballou's attempts (13) at standardization were not justified, relying on data secured in the following way. He copied the samples of the Ballou scale on separate sheets and asked twenty-three eighth-grade teachers (the same number of judges used by Ballou) to arrange them in the order of merit, rating the best one 95 and the others with reference to this as a standard and keeping in mind the eighth-grade standards they were accustomed to use. Brownell thought that the results showed that Ballou's attempts at standardization were not justified; the two sets of eighth-grade teachers showed little agreement with each other or among themselves in grading. The variations were most striking in the case of the scores assigned to the poorer themes. Theme 6 re-

[1] *Ibid.*, pp. 344–45.

ceived one score of 85, one of 80, one of 75, two of 70, three of 65, five of 60, six of 50, two of 40, one of 30, and one of 25 (**35**: 940).

It may be said that Ballou and other scale-makers, recognizing the inevitable variety of judgments concerning one theme, desired to find a central or focal point of judgments. Brownell did not compare the median judgment of his twenty-three judges with the scale values. Had he done so, his data might have supported all that Ballou claimed for the value of the specimens in his scale. Moreover, later scale-makers, notably Hudelson, used trained scorers, judges whose ability in the use of scales had been demonstrated.

5. *Categories of criticism not objective.*—A fifth major criticism is that there is no measurable or statistical method of comparing a theme with the standard samples in a scale which will make necessary a certain result regardless of the teacher's opinion. In short, the scales, subjective in derivation, cannot fail to be subjective in application. Even Ballou, Van Wagenen, and others, who append to the samples certain lists of merits, defects, and comparisons, make no attempt at completeness; their items are not systematized nor assigned definite values; stated in general terms, they leave the rest to the unstandardized and variable judgment of the teacher. Brownell, who most vigorously voiced this criticism, said:

> If the thought is better, if there is better taste shown, it is out of the question at the present stage of standardization to ask exactly how much better. These qualitative factors cannot be transformed, as yet, into quantitative terms. . . . . The Ballou scale does not state its standards in definitely measurable terms [**35**: 941].

The logical outcome of this criticism is that scales must have categories of criticism that are objective and applicable if the scales are to be valid measures. This objectivity may be realized with some degree of accuracy in the case of spelling, capitalization, punctuation, and the like but probably cannot be realized in the case of the more important rhetorical elements, such as structure, taste, and originality.

6. *The various qualities of writing not correlated with one another in excellence.*—Dolch (**69**) based another vital criticism of scales on an experiment conducted at the University of Illinois. Early scale-makers assumed that "general quality" exists, made up of various

contributing qualities, such as mechanical accuracy, excellence of organization, worthy substance, and rhetorical excellence. They assumed further that the qualities correlate very well (pp. 142–43)—in other words, that a pupil high or low in one of the subordinate qualities is correspondingly high or low in the other qualities. Again, test-makers seem to have assumed that, even if those using the scales stress different qualities in their judgments, they will locate a given composition at about the same place on the scale. The fact is that "general merit" is not a single quality, as has been assumed; on the contrary, composition merit is most decidedly a mixture of qualities.

Dolch and his colleagues tested the validity of such assumptions. They translated the items on the Hillegas scale into statements of progressive excellence in systematic thinking, in maturity of sentence structure, and in freedom from errors. One step on the scale, graded 70, as they analyzed it, may be presented.

Systematic thinking.—A moment's study reveals a definite plan or succession of steps in thought, but the structure is not plain enough to be comprehended at first reading. Or a bare outline.

Maturity of sentence structure.—Still some monotony of sentence structure but varied by occasional long sentences or inverted order. Or quite long sentences unsuccessfully handled.

Errors.—Some awkward sentences and some misspelling but no illiterate blunders [**69**: 541].

They then arranged ninety-five themes of college Freshmen according to their ranking on the Thorndike extension of the Hillegas scale and determined the extent to which excellence of thinking, excellence of sentence structure, and freedom from errors were found in these themes. In other words, they tested the reliability of the assumption that a theme good in one respect is good in the other two.

The results, presented in an elaborate table (**69**: 543), indicated that few themes had the same score on any two qualities and that the variation in many cases was large, the scores for individual qualities being sometimes higher, sometimes lower, than the ranking of the theme as a whole on the scale itself. Emphasis on different qualities by different users of the scale would have resulted in marked disagreement in the scores assigned. Moreover, excellence in one quality of composition was by no means indicative of excellence in other qualities. The facts seem to be that there is failure even on the

part of competent persons to see the same qualities in any piece of writing and that there is non-agreement as to the relative importance of various qualities in writing.

Dolch testified that in this experiment he and his colleagues were inclined (1) to score the general quality of a theme on the Hillegas scale after reading a few sentences, (2) to score a theme immediately on finding a gross error, (3) to place a theme in the scale according to some one feature prominent in the scale itself, and (4) to place undue emphasis on their own particular composition hobbies.

Reliability of control tests and composition scales.—Pressey investigated the accuracy of measures yielded by such instruments as the Hillegas and the Willing composition scales. In order to determine whether children write equally well on different topics, various sets of compositions written by the same pupils were scored and the ratings correlated. The ratings were made by the same scorer, using the Willing scale, and the compositions were obtained according to Willing's directions.

> The ratings on narrative and descriptive compositions, or on successive narrative compositions written by a given child, were surprisingly inconsistent. Thus, ratings on one narrative composition correlated with ratings on another composition written two or three days later, in a fifth-grade class, with a coefficient of only .15 [**179**: 37].

Similar studies checked further by a different procedure were made with similar results. Ratings in written English were secured for certain pupils from three competent and experienced teachers, the average of whose ratings was used to represent the general ability of the children in written English. The correlation between this estimated ability and the ratings on narrative compositions was found to be only .29; between ability and ratings on descriptive compositions, .33.

Pressey attempted to construct a test which would analyze ability in formal elements—vocabulary, grammar, and punctuation—through multiple-choice tests and proofreading tests. Scores on this analytical test were correlated with the pooled estimates of teachers with regard to ability in English composition. The correlation was found to be .72. The author felt that this indicates a test which is more reliable than the composition scales in predicting total ability in written composition.

7. *Essential qualities of expression not considered.*—A final criticism of composition scales is that they omit from consideration the most vital and essential qualities of expression. "These factors are, roughly, (1) *impression* (rather than the usual, stressed expression); (2) *content* (rather than phraseology and style); (3) *originality* (rather than reproduction)."[1] As a matter of fact, this criticism, seemingly the most serious one lodged against instruments for measuring composition, may very well be directed also against the past and present methods of *teaching* composition: Reproduction, style, and expression are stressed; their opposites are neglected from the first grade through the first year of college at least.

Concluding statements.—The validity of several of the major criticisms of composition scales enumerated cannot be gainsaid. The instruments are certainly far from perfect. However, the fact is that every conscientious and capable reader of themes uses an informal scale. Compelled to grade themes, he employs, perhaps unconsciously, a standard for a C theme embodying certain degrees of excellence in substance, organization, and mechanics of expression and in freshness, vitality, and attractiveness of presentation. A theme somewhat better in these respects is to him worthy of a mark of B; a theme somewhat inferior in these elements is a D theme. In short, a theme-reader is compelled to appraise products in rough quantitative terms. Scales endeavor to make such informal quantitative standards somewhat more specific, to enable teachers to compare their criteria of excellence. Gross differences in merit which everyone can recognize are broken up into constituent elements, with the expectation that a more uniform and reliable set of standards may be available for use in appraising compositions. At any rate, certain studies reviewed later in this chapter (pp. 164–66) indicate that scales, scientifically questionable perhaps, actually assist teachers in making more reliable appraisals of the work of their pupils.

2. THE NEED OF OBJECTIVE MEASURING INSTRUMENTS

The foregoing summaries, covering the development of the composition scales and the major criticisms made against them, have suggested the various needs which the scales have been designed to

[1] Joseph C. Gainsburg, "Fundamental Issues in Evaluating Composition," *Pedagogical Seminary*, XXXI (March, 1924), 59–60.

meet. These needs are the elimination of the injustice of widely varying estimates of pupils' written compositions and the development of something better than unaided subjective judgment for determining ability groups; for comparing the composition attainments of pupils, schools, and school systems; and for appraising different instructional materials and methods.

a) VARIABILITY OF TEACHERS' JUDGMENTS IN GRADING THEMES

Many investigations have resulted in an abundance of objective data indicating the extent to which teachers differ in estimating pupils' products. Of course, the fact of such variability is obvious; only samples of the measurements of such differences need be presented here.

TABLE XLI*

PERCENTAGE SCORES GIVEN TO EIGHT THEMES BY TEN TEACHERS IN THE SAME SCHOOL

THEME	TEACHERS										AVERAGE	AVERAGE DEVIATION
	A	B	C	D	E	F	G	H	I	J		
1	55	88	71	80	60	90	86	85	90	70	77.5	±10.8
2	70	89	78	90	83	94	85	85	92	70	83.6	± 6.7
3	40	84	85	76	50	95	82	70	75	65	72.2	±12.7
4	80	94	75	92	80	88	91	90	95	90	87.5	± 5.5
5	75	87	79	90	70	70	81	79	85	75	79.1	± 5.3
6	40	92	72	86	75	92	80	80	60	75	75.2	±10.8
7	25	75	50	42	30	45	40	40	30	35	41.2	± 9.4
8	30	75	62	38	40	45	45	35	45	40	45.5	± 9.2

* Rearranged from author's data.

Variations among teachers in the same department.—Hudelson (110) showed variation in the judgments of seventeen English teachers in one school who had been satisfied with their ability to judge composition merit subjectively. The range of their judgments on seventeen themes on a percentage basis of scoring was 0–35, 35–60, 40–70, 70–83, 30–70, 30–60, 0–30, 30–75, 45–80, 30–60, 40–75, 48–80, 45–80, 50–83, 50–85, 27–50, and 45–80. To indicate further the serious injustice to pupils done by such wide divergence, Table XLI (110: 331) presents the percentage marks of ten teachers in the same school on eight compositions.

Theme 3 received a score of 40 from one teacher and a score of 95 from another. Teacher B, a very liberal marker, would have "passed" all eight pupils; Teacher A would have given failing marks to six pupils. These two instructors were teaching different sections of the same composition course. Six teachers would have "passed" with an average score of 83 the pupil who wrote Theme 3, while four teachers would have caused him to fail with an average score of 56. The average pupil improvement per year is about 4 per cent. In the case of more than half of the eight themes the average deviation for these ten teachers was equivalent to more than two years of normal pupil growth. On certain themes some of the teachers varied from the average judgment of the ten as much as eight years of normal growth in composition. On Theme 3 Teachers A and F were almost fourteen composition years apart in their scores. A similar study was reported by Mayhew, who, with teachers in New Haven, attempted to construct an English scale which would show a representative composition for each grade level. Thirty compositions selected by competent judges were submitted to teachers for their ratings. Mayhew found that "judgments varied so widely that it was impossible to use even one composition as a representative of a grade accomplishment" (**152**: 104).

Perhaps the most striking evidence of variation is found in the tables of composite judgments on which all or any of the composition scales are based; for example, forty narrative compositions were ranked in the order of excellence by 175 judges in the studies preliminary to the Lewis Scale for the Measurement of the Quality of Simple Narration with the resulting differences shown in Table XLII (**135**: 118–23).

Several other studies have presented data concerning the variability of teachers' marks on the same themes. Ballou presented tables showing the maximum variation of twenty-four readers of twenty-five compositions (descriptions) as ranging from 5 to 43 on a scale of 100 (**13**: 30). Thomson and Bailes (**233**) showed that one group of sixty-one teachers in New-Castle-upon-Tyne, England, gave marks to one theme ranging from 0 to 70, with a median of 46; another group of fifty-seven teachers marked the same theme, the marks ranging from 0 to 80, with a median of 39. Fifty papers

of pupils in Grade VII marked by six headmasters and five graduate students indicated that inexperienced markers graded as accurately as did experienced markers but that both groups showed wide variations in judgments on the same theme.

Gunther (**88**: 537) found marked disparity of teachers' marks given two months apart for the same themes; for three scorers the range in ratings was 40–93, 40–85, and 45–85; the median difference between the two ratings of thirty-five themes by three teachers was 5–9 per cent, 10–14 per cent, and 5–9 per cent. Starch and Elliott (**218**) found the range in percentage scores given by 142 teachers of

TABLE XLII*

SAMPLE DIFFERENCES IN JUDGMENTS OF 175 JUDGES ON FORTY NARRATIVE THEMES

Theme	Highest Single Score	Lowest Single Score
1	1	14
3	1	17
7	1	39
10	3	35
26	6	39
39	7	40
40	9	40

* Rearranged from author's data.

ninth-grade English to two compositions to be as high as 35 to 40 points. The standards of a passing mark were variable and indefinite for any one teacher. Composition B received a mark 5 points above passing by the teacher of the pupil who wrote the theme, whereas 22 teachers out of 142 who marked the same paper gave it a failing mark. Silberstein (**212**) had thirty-one English teachers in the Stuyvesant High School, New York City, grade English papers written for the New York Regents' examination. Wide disparity of appraisal was found. A sample paper received an average of 32 per cent from seven of the most rigorous judges and an average of 89 per cent from seven of the most generous markers. The Regents' mark for this sample was 59 per cent. McKinney (**149**) had four ninth-grade themes ranked by members of the Eastern Illinois English Club; the following variations were found: Theme A, from 70 to 90; Theme B, from 75 to 95; Theme C, from 63 to 93; and Theme D, from 55 to

93. Such disparity of grading shows the need for better analysis of standards of excellence in pupils' written work.

b) UNRELIABLE STANDARDS FOR PROMOTION AND FOR GRADE ACHIEVEMENT

An extensive study was made by Briggs (31), who secured two themes from each of the four classes in sixty-one high schools in fifty-eight cities in thirty-three states. One of the themes was considered by the school submitting it to be "barely passing"; the other, "highly superior." Each of these themes was graded by eight different judges using the Nassau scale. Ninety-three themes selected for careful scoring included all the themes marked the highest and the lowest by the eight judges. The ninety-three themes were rated by two groups of judges, each rating independently; each theme was rated by at least fifteen trained scorers and some themes by forty-one trained scorers. Twenty-nine themes were graded also by from 74 to 185 members of another group consisting of experienced teachers of English.

The data revealed a range of from 2.6 to 3.9 points on the Nassau scale as the quality considered "passing" and a range of from 1.6 to 2.75 points in the "best" work of the sixty-one schools. Some Freshmen considered by their teachers as "barely passing" wrote better compositions than did Seniors in other schools who were considered "highly superior" by their teachers. Nine of the sixty-one schools were consistently very low or very high in their passing standards. The range of "passing" in the ninth grade was nearly twice the average improvement in composition during the four high-school years (pp. 186, 187). "The facts indicate that a pupil's passing a course in written composition and his mark depend more on the fortune of his assignment to a particular teacher than they do on his actual achievement" (31: 441).

Certain (41) undertook to ascertain (1) how experienced teachers vary in opinion as to "passing" standards for Grades IX–XII and (2) the extent to which these standards compare with results actually achieved by pupils and with standards tentatively formulated by methods of research. He asked 120 teachers to consider ten compositions of known value, six from the Nassau scale—values 3.8, 5.2, 6.0,

7.2, 8.0, and 9.0; three from Thorndike's *English Composition*[1]—values 5.3, 6.7, and 7.7; and one rated by Courtis at 8.5. All values are expressed in terms of the Nassau scale. Each teacher was requested to select from the ten compositions one for each of the four high-school years which she believed represented a desirable passing standard in quality.

The results indicated great disparity of judgments. The composition graded 7.2 was selected by thirty-two teachers as the ninth-grade passing standard; by thirty-one teachers, as the tenth-grade standard; by fourteen teachers, as the eleventh-grade standard; and

TABLE XLIII

COMPARISON OF MEDIANS IN COMPOSITION

School Year	Actual Attainment of Pupils					Teachers' Subjective Standards for Passing—120 Teachers of English	Research Standards—Trabue	
	South River, New Jersey	St. Paul, Minnesota	Mobile County, Alabama	54 High Schools in 35 States	Nassau County, New York		Ideal	Upper 75 Per Cent of Classes
IX	5.18	5.83	5.18	4.99	5.00	7.2	6.01	5.5
X	5.02	5.66	5.02	5.88	5.25	7.7	6.5	6.0
XI	5.95	6.27	5.95	5.38	5.68	8.0	6.9	6.4
XII	6.30	6.64	6.30	6.69	5.94	9.0	7.2	6.7

by five teachers, as the standard for the twelfth grade. Although a median quality of 8.5 (Nassau) has never been achieved even by a twelfth-grade group in an educational survey, twenty-two teachers selected 8.5 as the ninth-grade passing standard; twenty-four, as the tenth-grade standard; and twenty-one, as the eleventh-grade standard; only six teachers selected 8.5 as the passing standard for the twelfth grade.

Moreover, as shown in Table XLIII, Certain (41: 311) presented evidence indicating that the arbitrary standards set by these 120 representative teachers of English far surpassed the actual median attainments as reported by various surveys as well as the ideal standards derived by Trabue. That such standards are actually maintained for promotion cannot for a moment be believed.

[1] Edward L. Thorndike, *English Composition:* 150 Specimens Arranged for Use in Psychological and Educational Experiments. New York: Teachers College, Columbia University, 1916.

Hudelson asked 193 teachers to specify the school year in which they would classify a pupil on the basis of one theme. The results for two themes appear in Table XLIV (**109**: 43). Five teachers considered Theme 2 of fifth-grade standard, while three considered it work of the college level. Even if these extremes are discarded, a range of seven school years represents the grade placement of Theme 2.

Concluding statements.—The studies made by Briggs (**31**), Certain (**41**), and Hudelson (**109**), selected from many easily available, indicate startling variation in the judgments of teachers and of

TABLE XLIV*

JUDGMENTS OF TEACHERS AS TO GRADE PLACEMENT ON THE BASIS OF ONE THEME

School Year	Theme 1		Theme 2	
	Number of Judges	Percentage of Judgments	Number of Judges	Percentage of Judgments
XIV	.....	.....	1	0.52
XIII	.....	.....	2	1.04
XII	4	2.07	9	4.69
XI	17	8.81	4	2.08
X	57	29.53	21	10.94
IX	49	25.39	55	28.65
VIII	39	20.21	53	27.60
VII	26	13.47	30	15.63
VI	1	0.52	12	6.25
V	.....	.....	5	2.60

* Rearranged from author's data.

schools regarding satisfactory work in English composition. Barely passing ninth-grade themes in some schools are of higher intrinsic merit than twelfth-grade themes considered of superior merit by other schools. The range of "passing" in the ninth grade as used by different schools is nearly twice the average improvement that may be expected of an average pupil during the four high-school years. The imperative need of equalizing standards of judgment is obvious.

c) EFFECTS OF COMPOSITION SCALES ON TEACHERS' APPRAISALS

The studies made by Briggs (**31**) and Certain (**41**) by implication at least raise serious doubt as to the stabilizing effect of scales on judgments of teachers without extensive training. The fact must be recognized that the best result to be hoped for through the use of measuring instruments by teachers is a material lessening of present

inequalities and injustice. The evidence from investigations on this point is about equally divided; some studies seem to indicate that scales help; some, that scales are of little avail.

(1) RESULTS FAVORABLE TO THE USE OF SCALES

Van Wagenen (**243**) compared the variation in ratings of two sets of judges on eighteen themes—seven college teachers of English who graded the themes on a percentage basis and thirteen high-school teachers of English who used a scale in grading the themes although they were untrained in its use. The college teachers rated only 33 per cent of the papers on a ten-point scale with an error of not more than four points from the median of the group. In contrast, the high-school teachers, using a scale but untrained in its use, graded 47 per cent of the papers with an error of not more than four points from the median of the group (**243**: 442). The evidence strongly favors the use of a scale in reducing variation in teachers' judgments.

Darsie (**65**) had 143 compositions rated independently on the Willing scale by judges who had had no previous experience in the use of a scale, each judge rating from ten to thirty papers. The papers were redistributed and graded a second time by different persons in the same group. Darsie found the correlation between the two sets of ratings to be $.884 \pm .0123$; the divergence equaled 6.01 scale units, P.E., ± 5.92. The data seem to indicate that the reliability of the scale is high even when it is used by untrained persons.

Briggs (**29**) had from seventeen to thirty-four teachers in nine high schools grade by means of the Nassau scale each of seventy-five compositions of Seniors which had been previously graded by eight members of the College Entrance Examination Board. To focus attention on the relative standards of the two groups of judges, he selected the four themes which the teachers had marked the highest and the five they had marked the lowest. Only one of the poorest "passed"; all the best "passed." The results showed that the teachers' standards aided by the Nassau scale apparently satisfied the requirements of the College Entrance Examination Board.

Correlation between measurements based on two scales.—Stoddard graded 539 compositions of pupils in Grades V–IX, inclusive, in two towns by means of the Hillegas and the Harvard-Newton scales. The correlation of the results recorded in Table XLV (**223**: 500) was

found to be high when the Harvard-Newton values were changed to percentages. The high correlation indicates that both scales are useful in estimating progress from grade to grade. The greater divergence in the records of the second town may have been due to the fact that content and expression as contrasted with accuracy had been stressed in the instruction of the preceding year. The implication is that the Harvard-Newton scale, which purports to measure literary form, had more correctly measured progress.

In a similar study Van Wagenen (**243**) had thirty mature judges rate forty-four expositions, forty-eight narrations, and fifty-one de-

TABLE XLV

MEDIAN SCORES OF THEMES GRADED BY TWO SCALES

GRADE	FIRST TOWN		SECOND TOWN	
	Hillegas Scale	Harvard-Newton Scale	Hillegas Scale	Harvard-Newton Scale
IX	514	52	550	58
VIII	483	49	420	49
VII	383	38	423	52
VI	277	28	354	38
V	205	22	217	22

scriptions by means of the Thorndike extension of the Hillegas scale (general merit). The compositions were then rated by means of the Minnesota English Composition Scales, which specify distinctions between thought content, sentence and paragraph structure, and mechanical matters. After the three sets of compositions had been rated for general merit, the median for each composition determined, and the variation of each judge's rating of each composition from the median rating calculated, the average of the variations for each set of compositions was determined for each judge. The average variations ranged from 3.9 to 12.9 points. In the case of grading the themes for the specific qualities indicated on the Minnesota scales, the range of errors from the true scores was approximately the same. The ratio of the ranges for the three qualities—thought content, structure, and mechanics—to the range for general merit was approximately 1.4 to 1 for the description, the exposition, and the narration themes (**243**: 449). The conclusion reached by Van Wage-

nen is this: "On the whole, there is little difference in the abilities of these people to grade a theme for general merit or for a specific quality" (**243**: 446).

Van Wagenen adequately sums up the case for the use of scales to the effect that anything like precision can be secured in grading compositions only through some means of definite and objective measurement.

> When one considers that the range of composition ability for any class is likely to be not less than 30 points on the Thorndike Extension of the Hillegas Scale and that competent teachers of English, even without training or practice in the use of the scale, can rate at least half of the themes which they grade with an error of not over 5 points or not over one-sixth of the range of the ability of the class, it seems highly desirable that composition ability be expressed in terms of a valid objective scale instead of the present indefinite terms of percentages or letters [**243**: 449].

(2) RESULTS UNFAVORABLE TO THE USE OF SCALES

Other investigations have reported data which carry quite unfavorable implications as to the value of scales, especially when untrained persons attempt to use them. The value of the Hillegas scale was tested by Johnson (**116**), who submitted eight compositions to forty-two teachers of English, to sixteen graduate students studying educational measurements, and to a special group of five teachers of English in the University High School, University of Chicago, asking them to grade the compositions according to the Hillegas scale. The results are presented in Table XLVI (**116**: 46–47).

Effect of using the Ballou (Harvard-Newton) description scale.— Baldwin (**12**) reported that the subjective element in judgments based on the Ballou description scale is just as great as the subjective element in percentage grading. The range in percentage scores given by twenty-four judges to thirty-four themes written by seventh-grade pupils was very wide, reaching a maximum of 73 points in the case of one theme. The range of scores of two judges using the Ballou scale was much less. The unguided judgments averaged a score of 76.2 for the thirty-four themes; one judge using the scale gave an average score of 61.23; the other, 49.2. The control group of twenty-four judges placed the median of the class at 70.5; one judge using the scale, at 60; the second, at 59. This study has little value. It may be pointed out that only two judges used the scale; one was

trained and the other was not, but their judgments were compared. Furthermore, the judgments of two scorers using one method of scoring were compared with the judgments of twenty-four other scorers using another method of scoring; the same persons should have used both methods.

TABLE XLVI*

VARIATIONS IN SCORES ON EIGHT THEMES JUDGED BY THE HILLEGAS SCALE

THEME	FORTY-TWO TEACHERS OF ENGLISH		SIXTEEN GRADUATE STUDENTS		FIVE TEACHERS OF ENGLISH IN THE UNIVERSITY HIGH SCHOOL, UNIVERSITY OF CHICAGO	
	Maximum Variation	Average Variation from Average Score	Maximum Variation	Average Variation from Average Score	Maximum Variation	Average Variation from Average Score
A	40	8	32	11	18	5
B	47	8	19	6	30	7
C	51	11	57	15	20	11
D	38	8	55	13	23	11
E	55	8	63	8	25	5
F	53	8	25	6	23	5
G	30	7	27	7	20	6
H	69	11	46	11	20	7

* Rearranged from author's data.

TABLE XLVII*

RANGE OF SCORES GIVEN BY SEVEN JUDGES TO SEVENTY-THREE COMPOSITIONS

Measuring Instrument	Average Range	Extreme Range
Teacher's judgment	44	71
Hillegas scale	35	49
Ballou narration scale	36	54
Score card	29	46

* Rearranged from author's data.

Value of a score card as compared with a scale.—Sackett evaluated four different methods of grading compositions: (1) teacher's judgment, (2) the Hillegas scale, (3) Ballou's narration scale, and (4) a score card prepared by English specialists. Seventy-three compositions written by pupils in Grades IV–VII, inclusive, were scored by seven judges trained in measuring compositions. The column "Average Range" in Table XLVII (**195**: 234) shows the results of a com-

parison of the three highest scores for each composition with the three lowest. The column "Extreme Range" shows the results of a comparison of the lowest and the highest scores. Apparently there was a tendency for the scorers to be thrown into extremes of scoring when using percentage scores based on their judgments, whereas in the use of the more analyzed and standardized methods the extremes were less apparent. A slight advantage appeared for the score card.

A second experiment in which twenty themes selected at random from seventy-three were scored by fifteen experienced teachers by all four methods indicated even more definitely that the teacher's judgment was the least reliable, that the scale methods were not materially better, and that the score card was notably the best.

The score card included the following items: A—correctness, 30; divided into spelling and capitalization (15), paragraphing (8), and punctuation (7). B—sentence structure, 20; divided into syntax (10), simplicity (7), and diction (3). C—thought-content, 50; divided into originality (25), unity (15), and coherence (10) (**195**: 234).

The superiority of the score card was attributed by Sackett to (1) the localization of teachers' attention on a few definite points clearly set forth and (2) to the fact that samples in scales often featuring one element may direct undue attention to that one item in the compositions graded. Hulton (**112**) found that a somewhat similar score card did not reduce the spread of teachers' scores.

Theisen made a similar study, fifteen teachers twice scoring twelve specimens from Thorndike's list of compositions, first using judgments only and then using the Nassau scale. Unaided judgments ranged from 33 points too low to 52 points too high according to standard value; in general, the judges rated the selections too high; the average variation per teacher on each specimen was 19.1 points. The aided judgments showed 39 per cent reduction in variability on the first attempt to use the scale. To state the evidence in another way, one-eighth of the unaided judgments and one-fourth of the aided judgments produced errors of not more than one-half step on the ten-step scale. Three-tenths of the unaided judgments as contrasted with one-half of the aided judgments produced errors of not more than one step on the ten-step scale. The facts are shown in Table XLVIII (**229**: 148).

Thomas (230) presented the results of an experiment in which fifty papers were graded by fifteen judges without a scale and three weeks later graded by means of the Hillegas scale. The extreme variation on the first marking was 58 points; on the second, 44 points. The nine judgments nearest the median showed a variation of 43 per cent on the first marking and 32 per cent on the second. The more uniform marking of the second measurement was probably due

TABLE XLVIII

AVERAGE VARIATION OF EACH TEACHER FROM STANDARD VALUE

Teacher	Judgment without Scale	Judgment with Scale
1	22.7	9.7
2	15.4	9.3
3	20.3	15.5
4	20.6	10.4
5	18.2	9.5
6	23.0	7.7
7	15.7	10.5
8	12.7	13.9
9	19.5	8.3
10	22.5	11.2
11	14.5	12.5
12	21.8	14.7
13	23.4	13.3
14	17.0	13.1
15	16.0	14.5

to the feeling, accentuated by the use of the scale, that greater uniformity was desirable; a conference had followed the first marking. The specimens of the scale were so bookish and artificial that school compositions presented little parallel. The teachers testified that the tendency was to place a composition near the middle of the scale in despair of doing anything better.

d) EFFECTS OF TRAINING IN THE USE OF SCALES

That composition scales are, in general, unreliable when they are used by persons untrained in their use seems to be the judgment of scale-makers such as Willing (254: 15) and Hudelson (110: 334–35). Some evidence on this point is available.

Brandenburg (25) had sixty compositions selected at random from 1,004 written as part of the 1919 entrance examination of Pur-

due University carefully scored by five instructors in English, to four of whom the Hillegas scale was new. Of the scores, 57 per cent varied by less than one step (scale of 10) from the median score of all the judges; 32 per cent, by more than one step but less than two steps; and 9 per cent, by more than two but less than three steps. Brandenburg maintained that this result showed the usefulness of the scale. However, the average deviation of the judgments by the untrained scorers was 8.8 points on the Hillegas scale. The average deviation of 635 judgments of eighth-grade compositions by five trained scorers in the Gary survey (**61:** 253) was 5.5 points on the Hillegas scale. Apparently the training of scorers to the amount received by the Gary judges decreased the average deviation 39.5 per cent.

Hudelson (**110:** 336) presented the results of training 157 English teachers in the use of an objective scale. For the experiment each teacher scored 157 themes of unknown value on a percentage basis. Then the teachers studied the scale, discussed it, and practiced applying it for three periods of four, six, and sixteen hours, respectively. After each practice period the teachers again scored the themes. Their improvement is represented in Figure 2 (**110:** 336).

The distance from the middle line to the second horizontal lines above and below in Figure 2 represents the average of the average deviations of the 157 teachers. Half the teachers scored the themes over five progress years in composition above or below their true values. Successive practice in the use of the scale reduced the variation in their judgments. After the sixth hour of practice, their rate of improvement decreased very rapidly, but after sixteen hours of "blind" practice, these teachers, who had had no previous experience with objective measurements, were, on the average, scoring themes within one composition year of their true values. On the basis of this evidence, Hudelson maintained that the use of scales by trained scorers (1) will produce a more nearly uniform distribution of marks, (2) will decrease the frequency of superior marks, (3) will shift a considerable number of barely passing marks to the failure level, and (4) will cause class medians to rise at a more reasonable rate (**110:** 334). In this study the effect of familiarity with themes was apparently neglected, the same ones being graded repeatedly.

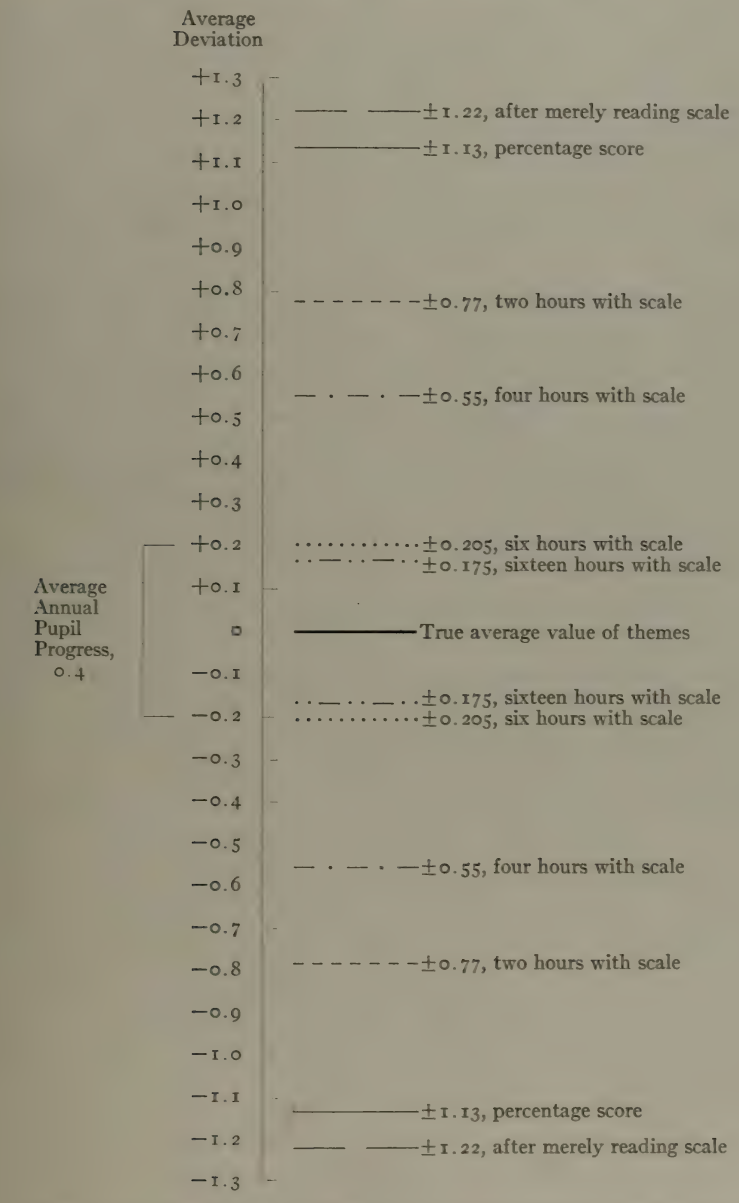

FIG. 2.—The effect upon reliability of practice in using the Hudelson Typical Composition Scale.

Concluding statement.—The true merit of scales for measuring compositions appears to be an open question; certainly the evidence is conflicting. That they are perfect instruments which will insure accurate measurements of all pupil products by all who use them, no one has the temerity to maintain. That they enable even untrained users to improve somewhat the haphazard guessing that generally characterizes the marking of compositions seems to be definitely established.

To be remembered is the fact that composition scales cannot be compared with instruments for weighing sugar or for measuring liquids. With this in mind, it is difficult to accept the following statement made by Thorndike.

> If we had a series of blocks of lead weighing 2.4, 3.9, 5.7 . . . . pounds respectively, they would be a scale or graded series of standards for weight substantially as these drawings [designed as standards] are a graded series of standards of children's drawing.[1]

The truth is that weight is a single, definitely isolated quality or characteristic of any material, distinguishable from size, or color, or age, or producer, or conditions of production, or circumstance of use; the block of lead weighing 3.9 pounds is always presumably the same for any measurer, in all temperatures, at all times, under all conditions. The block weighing 3.9 pounds was not determined by faulty human judgment, nor by the median judgment of many faulty experts. It can be balanced exactly over against any material of any sort that is exactly equivalent to it in the single item of weight. On the contrary, a pupil's drawing rated 3.9 or a pupil's composition rated 3.9 on a scale of 10 is not and does not have a single, definitely isolated characteristic; it is beyond question a composite of an indefinite number of elements all of which contribute to its merits. Moreover, while the composition rated 3.9 is objectively the same under all conditions, it is not subjectively the same even to one individual at different periods; he must always judge it subjectively whether he is in good or bad temper, in sickness or in health. Certainly it is not always subjectively the same to different individuals who may use it. Moreover, the composition was placed at 3.9 by the median judg-

[1] Edward L. Thorndike, "The Measurement of Achievement in Drawing," *Teachers College Record*, XIV (November, 1913), 352.

ment of perhaps twenty-two scorers, eleven of whom appraised it above 3.9 and eleven below. It is not, therefore, a stable, indisputable something to those who evaluate it, or to those who use it; nor can it be balanced equally well over against a letter, an editorial, an argument, or a narrative. There are not and cannot be "standard units" of composition.

In brief, a scale of weights is quantitative; a scale of compositions is qualitative.

At the same time, it may be repeated that every capable theme-reader, compelled to grade themes, uses some kind of informal scale. Possibly he has a standard for a theme worthy of a mark of 70 or a mark of C. In his mind this theme has a more or less definite degree of excellence in content, in organization, in spelling, in capitalization, in sentence and paragraph structure, in interest, and in freshness of expression. A theme worth 80 or B is better in these respects; a theme worth 60 is poorer. Courtis (**61**: 241) affirmed that teachers think roughly in quantitative terms—so many errors, so many excellencies, for the various steps of informal scales.

At best, then, the qualitative features of a theme are estimated in rough quantitative terms. If this is true, may not the best service of composition scales lie in the fact that they make trained scorers more definitely aware of the various elements to which they attach importance in determining the merits of compositions? When a good scale is used by experts, many of the values claimed for it in appraising school products may be very worth while indeed.

e) PROGNOSTIC VALUES OF ABILITIES IN ENGLISH

Limited value of certain English abilities in forecasting aptitudes.—Hull and Limp (**111**) stressed the importance not only of determining the present differences among individuals but also the even greater importance of being able to forecast differences in the efficiency of the same individual in different fields of endeavor. Experimenting along this line, they gave two batteries of aptitude tests, one for English and one for algebra, to seventy-three pupils beginning their ninth-grade work in these subjects. The English battery consisted of four parts: (1) mixed sentences, (2) speed of writing, (3) spelling recognition, and (4) volitional perseveration. Weights and relative

values assigned to the scores on the respective tests, determined by means of regression equations, indicated the most probable school marks in Grade IX English possible to estimate from these tests.

Correlation of the results of the tests with two sets of school marks obtained by the pupils was indicated for English as .65; for algebra, .74. The authors pointed out serious sources of error (**111**: 80). They affirmed that the coefficients secured were rather high as aptitude-battery coefficients. However, by applying a formula, they found that the prognostic or forecasting efficiency for the English battery was 24 per cent; for the algebra battery, 33 per cent—values so low that the authors questioned whether the procedure warrants the time and energy involved. With regard to the forecasting value of the two batteries, the authors said:

> We find the algebra battery nearly as good for English as the English battery itself, and the English battery estimating algebra nearly as well as it does its own aptitude. But if a choice needed to be made of one battery to forecast both aptitudes, the choice would clearly fall on the algebra battery [**111**: 87].

Barden (**14**) made a study in the teachers' colleges in Minnesota in an attempt to determine the value of the Hudelson Maximal Composition Ability Scale in predicting success in courses in English composition, using for the study 127 candidates for courses in English composition. The correlation between the scale scores of compositions written by these students before they received composition training in college and composition marks of the same students after three months of training was computed. A correlation of .531 was accepted as high enough to warrant the use of the scale in predicting the success of students in the composition courses. The scale was used the following quarter to select students whose success in regular classes was doubtful, and a remedial class was organized.

Carter (**40**) reported the findings of a study made by the faculty of Albion College in an effort to determine the value of unstandardized English tests in predicting success in English courses in the college. A standardized mental test and an unstandardized English test, composed of fundamentals of grammar and rhetoric and original composition-writing, were used in studying the equipment of entering Freshmen. The correlation between the scores on the two tests was found to be $.41 \pm .036$; between the scores on the mental test and

marks in English, .45±.035. The correlation between the scores on the mental test and marks in English was seven points higher than the correlation between the scores on the preliminary English test and marks in English and four points higher than the correlation between the scores on the mental test and the preliminary English test.

Fretwell (80) attempted to determine the value of standardized educational and psychological tests for predicting the success of pupils in school. A composition graded on the Hillegas scale was one of the measures used. The correlation between the composition scores and the marks given the pupils in the first year of the junior high school by four teachers was .37 in 1916 and .49 in 1917. The correlation between all the marks these pupils received in the first six years of school work and the marks received in the first year of the junior high school was .50. The composition score was as good an index of success as previous school marks.

Relation between intelligence and ability in composition.—Lockwood (137) found the correlation between the composition scores (Hudelson scale) and the semester marks of one hundred university Freshmen to be .773±.029. The correlation between the general intelligence (Otis test) and the composition scores of fifty-seven boys was .67±.05; of forty-three girls, .76±.04. Lockwood concluded that a high degree of intelligence is correlative with ability to write adequately. Sangren (196) reached a similar conclusion concerning ninth-grade pupils. Boss (22), however, reported that superior eleventh- and twelfth-grade pupils in Minneapolis showed surprising lack of correlation between intelligence and achievement in English composition. She concluded that the ability to punctuate, to spell, and to recognize correct grammatical forms has little relation to intelligence. In general, the conclusion that correlation exists is verified by other studies of the relation between ability in English and ability in other lines.[1]

[1] *a*) Dagny Sunne, "The Relation of Class Standing to College Tests," *Journal of Educational Psychology*, VIII (April, 1917), 193–211.

b) David Emrich Weglein, *The Correlation of Abilities of High School Pupils*. Johns Hopkins University Studies in Education, No. 1. Baltimore: Johns Hopkins Press, 1917. Pp. viii+100.

c) W. L. Uhl, "Mentality Tests for College Freshmen," *Journal of Educational Psychology*, X (January, 1919), 13–28.

Prognostic value of composition ability as compared with that of reading ability.—Van Wagenen and Kelley studied ninety-eight Sophomores in the University of Minnesota to determine the interrelations of abilities involved in theme-writing, in reading comprehension, and in completion of mutilated sentences; they found also the relation of these three types of ability to college marks in rhetoric

TABLE XLIX

RELATION BETWEEN VARIOUS ENGLISH ABILITIES

	Correlation
Abilities to do Trabue language-completion tests and abilities to write English compositions	.869
Abilities to make rhetoric marks and abilities to write English compositions	.719
Abilities to make rhetoric marks and abilities to make Sophomore marks	.688
Abilities to make rhetoric marks and abilities to do Trabue language-completion tests	.685
Abilities to make Sophomore marks and abilities to write English compositions	.557
Abilities to make Sophomore marks and abilities to do reading tests	.532
Abilities to write English compositions and abilities to do reading tests	.522
Abilities to make rhetoric marks and abilities to do reading tests	.423
Abilities to do Trabue language-completion tests and abilities to do reading tests	.404
Abilities to do Trabue language-completion tests and abilities to make Sophomore marks	.430

and to the total Sophomore marks in academic courses. The correlations in abilities disclosed are shown in Table XLIX (**245**: 465).

The ability to make high marks in rhetoric has a closer relation to the ability to make high total Sophomore marks than has the ability to write English compositions. The authors seem to have neglected the fact that the rhetoric mark is an essential part of the total Sophomore mark. Two other conclusions were reached by the authors. (1) The low correlation between the reading scores and the rhetoric marks may indicate that the thought content of compositions is not scored by teachers. (2) For prognosis of success in Sopho-

more work, scores on compositions requiring not more than thirty minutes to write, graded by means of the Thorndike extension of the Hillegas scale by three competent judges, have just as close a relation to Sophomore marks as do scores on reading-comprehension tests requiring more time.

In regard to the work in English three further observations seem warranted by the evidence presented: . . . . first, for classification of students in rhetoric, either a composition test or an extensive sentence-completion test seems to offer a reasonable basis; second, for classifying students in classes for the study of literature the reading test may undoubtedly be expected to give a considerably better basis than either the composition test or the sentence-completion test; third, in view of the differences in the abilities involved in reading for thought content and in writing acceptable compositions, it seems highly inadvisable to give a single mark for both subjects, calling it a mark in English, as is the common practice in secondary schools [245: 469–70].

Flemming (78) correlated scores on certain English tests with teachers' marks. The Briggs English Form Test and a test in composition rated by the Hudelson scale were among the tests used. Scores on the Briggs test were correlated with marks in grammar (.47) and with marks in composition (.46). The scores on the composition test showed a correlation of .35 with marks in composition and a correlation of .33 with marks in grammar. The correlation between the results of the Terman Group Test of Mental Ability and achievement in grammar was .50, and the correlation between the results of the Terman test and achievement in composition was .52. In addition, Flemming reported as follows:

The narrowness of function as tested by the English Form Test and the restricted implication of a single composition test are indicated by the fact that the correlation of the mental group tests with the former are noticeably less than with achievements in English. The limited scope of these tests is shown too by the fact that the correlation of the mental tests with achievement in English is much higher than the correlation of the English test with the marks in English [78: 119–20].

Ross attempted to determine the relation between the elementary-school record and high-school success in the different subjects in the curriculum. The correlation between the average marks in English in Grades II–VIII, inclusive, and marks in English in the first year of the high school was .50; the correlation between the aver-

age marks in all subjects in Grades II–VIII, inclusive, and marks in first-year high-school English was .66; and the correlation between the average marks in English in the elementary grades and the average marks in all subjects in the first year of the high school was .59 (190: 15–16).

The factors found most significant for predicting success in the first year of the high school were (1) average mark in English, Grades IV–VI, (2) average mark in effort, Grades VII–VIII, (3) average mark in arithmetic, Grades VII–VIII, (4) average number of days present, Grades IV–VI, and (5) age at end of Grade VIII (190: 22). These five factors combined at their optimum weight or value according to the Toops multiple-ratio correlation procedure showed a correlation of .67 with first-year high-school marks, a correlation slightly higher than that between the average of all marks in the elementary school and English marks in the first year of the high school. This is also higher than the correlation of .57 reported by Fretwell (80: 17) for the battery of standardized educational and psychological tests and English marks in the junior high school. The correlation of .67 between English marks in the first year of the high school and a combination of four factors weighted by the Toops procedure—average mark in English, Grades IV–VI; average mark in English, Grades VII–VIII; age at the end of Grade VIII; and average mark in special subjects, Grades VII–VIII—is also higher than the correlation between scores on a group-intelligence test and average English marks reported by Book[1] (.44) and Proctor[2] (.48).

3. ACHIEVEMENTS OF PUPILS IN COMPOSITION

The studies reviewed in this section fall into three closely related and overlapping groups: (1) those which measure the actual attainment of pupils at various grade levels, (2) those which attempt to ascertain improvement of pupils grade by grade, and (3) those which primarily seek to establish standard achievements for various grades. Only representative investigations are here reviewed.

[1] William F. Book, *The Intelligence of High School Seniors*, p. 105. New York: Macmillan Co., 1922.

[2] William Martin Proctor, *The Use of Psychological Tests in the Educational and Vocational Guidance of High School Pupils*, p. 33. Bloomington, Illinois: Public School Publishing Co., 1921.

a) GRADE ATTAINMENTS

Sixth-grade achievement.—Breed surveyed sixth-grade compositions in ten cities in Michigan, using the Breed and Frostic scale, with median results as given in Table L (**27**: 323). He estimated that there is a year of composition training represented by the dif-

TABLE L*

ABILITY IN ENGLISH COMPOSITION OF A SELECTED SIXTH GRADE IN EACH OF TEN CITIES IN MICHIGAN

City	Score	Rank	City	Score	Rank
A	5.48	1	F	6.08	6
B	5.58	2	G	6.10	7
C	5.74	3	H	6.20	8
D	5.94	4	I	6.21	9
E	6.00	5	J	6.45	10

* Rearranged from author's data.

TABLE LI*

AGE ACHIEVEMENT IN COMPOSITION OF 733 WHITE NINTH-GRADE PUPILS IN TWENTY-FIVE HIGH SCHOOLS IN VIRGINIA

Score—Nassau Scale	Number of Pupils	Percentage of Pupils	Median Age
1.9	4	0.55	16.25
2.8	37	5.05	15.23
3.8	102	13.92	15.03
5.0	215	29.33	14.91
6.0	319	43.52	14.48
7.2	55	7.50	14.41
8.0	1	0.13	13.50
Total	733	100.00	14.70

* Rearranged from author's data.

ference in scores of Cities A and J and that the range of median grade abilities for Grades I–VIII in composition would not be greater than the range of ability shown in this investigation (**27**: 324).

Ninth-grade achievement.—Table LI (**247**: 205) presents the scores of 733 white ninth-grade pupils as determined by Hudelson in the Virginia survey. The median score for white boys was 5.42 on the Hudelson scale; for white girls, 5.54; for colored boys, 4.88; and for colored girls, 5.05.

The Virginia ninth-grade achievement is equivalent to nearly

one year of composition progress in advance of the ninth-grade average of fifty-four high schools, as indicated in the first item of Table LII (**247**: 201), but more than a full year lower than Trabue's tentative ninth-grade standard (p. 187). Various other comparisons are shown in Table LII.

English equipment of seventh-grade pupils.—Driggs (**70**) investigated the language equipment of sixth-grade pupils in order to ascertain their preparation for seventh-grade work. He studied 1,304 compositions representative of forty-five schools in thirty-seven cities

TABLE LII*

COMPARISON OF COMPOSITION ABILITY OF NINTH-GRADE PUPILS IN VIRGINIA WITH THAT OF NINTH-GRADE PUPILS IN OTHER SCHOOL SYSTEMS

	Median Nassau Score		Median Nassau Score
Fifty-four high schools	4.99	Middletown, New Jersey	5.20
Mt. Holly, New Jersey	5.08	Xenia, Ohio	5.20
Friends School, Brooklyn	5.68	Idaho Springs, Colorado	5.55
St. Paul, Minnesota	5.83	Virginia:	
Nassau County, New York	5.00	White boys	5.42
South River, New Jersey	5.18	White girls	5.54
Mobile, Alabama (whites)	6.69	Colored boys	4.88
Cold Spring, New York	5.72	Colored girls	5.05
Janesville, Wisconsin	5.99		

* Rearranged from author's data.

in sixteen states. The compositions, written on the topic "The Cost of Carelessness," were appraised for general excellence by means of a scale with five levels of excellence—Steps A, B, C, D, and E—each consisting of four samples derived from the compositions themselves, following Willing's plan (**254**). Driggs reported the distribution of the 1,304 compositions in percentages: A, 7 per cent; B, 17 per cent; C, 35 per cent; D, 34 per cent; and E, 7 per cent; that is, 59 per cent of the compositions belonged to the A, B, and C classifications, while 41 per cent were seriously different, of the D and E levels (**70**: 83). A special study made of pupils who came from homes where foreign languages were spoken indicated a serious handicap; 60 per cent of these pupils produced compositions at the D and E levels (**70**: 83).

Achievements of college Freshmen.—With the aid of the Hillegas scale, Brandenburg (**25**) and six judges measured 1,004 compositions

(11 per cent by women, 89 per cent by men) written as part of the entrance examination for Purdue University. Eight scored 90+; 101 scored 80–89; 248, 70–79; 339, 60–69; 197, 50–59; 72, 40–49; 28, 30–39; 2, 20–29; 3, 10–19; and 6, 0. The median for the entire class was 65.7. The School of Science (almost entirely women) had the highest median (71.8); the School of Agriculture (almost entirely men), the lowest (61.9). The median score for the Senior classes in fifty-four high schools was 67 (**25**: 580). Ten per cent of the 1,004 students had composition ability equal to that of sixth-grade pupils. A somewhat similar investigation was made at the Ohio State University (**184**). The language attainments of seventy-four students assigned to "honor" sections of Freshman English were compared with the attainments of eighty-nine students assigned to "zero" sections. The students in the "honor" sections were found to use many more complex sentences, to have materially wider vocabularies, and to be markedly superior in the mechanics of composition. Evidently the assumption that all college Freshmen are prepared to do the same type of English work and the fairly common practice of teaching and grading on this basis are without justification.

b) IMPROVEMENT BY GRADES

In the Salt Lake City survey, Sears, using 3,043 compositions written by 16 per cent of the pupils in the elementary schools, estimated the progress of Grades IV–VIII in Hillegas terms translated into unit values on a scale of ten, as follows: Grade IV, median achievement 2.9; Grade V, median achievement 3.1; Grade VI, 3.8; Grade VII, 4.4; and Grade VIII, 5.4 (**201**: 140). These data indicate that during four years of training in English composition the average child may be expected to gain in efficiency the equivalent of two and one-half points on this scale at the rate of .6 of a point a year. According to the Butte survey, the composition progress of the average child was at the rate of .45 points on the Hillegas scale per grade (**201**: 139). However, in each grade, wide variations in composition ability appeared; of the fourth-grade pupils, 8 per cent scored higher in composition than did the average pupil in Grade VIII. Keller (**121**) reported a recent study showing the gradual improvement of elementary-school pupils in Cleveland.

Quality of eighth-grade compositions after interval of three years.—Stark (**219**) compared the compositions of one eighth grade of 133 pupils with those of another eighth grade of 156 pupils three years later in the same school. The two sets of papers were graded with the assistance of a six-step scale, specimens selected from the earlier papers representing different degrees of merit. The composition achievements of the two groups were approximately identical: the average ability of eighth-grade pupils produced a composition lying at about 580 on the Hillegas scale.

Haggerty (**89**) reported an experiment in which an eighth-grade class was trained in composition through a period of twenty-four weeks and tested each week by a written paper. One thousand themes were graded by the Hillegas and the Harvard-Newton scales. Records on the Hillegas scale rose by a fairly gradual curve from 46 to 74 (Hillegas values expressed in percentages); the Harvard-Newton records began at 58 and at the twenty-fourth week had risen to 75.

Correlation between abilities in language and in composition.—Jamison determined the progress of pupils in Grades IV–XII in two related English abilities by estimating achievements in September, 1918; May, 1919; September, 1919; and June, 1920. On these dates the Trabue Completion Test Language Scales and the Nassau scale were used. A graph of progress in composition achievement by grades showed an average gain of 38 per cent (progress in Nassau scores changed to percentages) for all grades (**113**: 246). The average rate of progress in language accomplishment as measured by the Trabue scales was 20 per cent per grade. Correlations between the two sets of scores for language ability and for composition ability showed for the yearly averages in all grades a range from .38 to .61. The average of all correlations between the two sets of scores was .50. Jamison concluded that an apparent correlation exists between the abilities required for these two subjects—language and written composition (**113**: 252).

Certain (**43**) described an experiment in which all pupils in Grades IV–XIII, inclusive, in a school system in Michigan wrote three compositions. From the papers written by each grade, the papers marked excellent were selected, and a curve was constructed

showing the percentage of such papers in each grade. The curve rose from 8 per cent in the fourth grade to 10 per cent in the sixth grade, 20 per cent in the ninth grade, 30 per cent in the eleventh grade, and 40 per cent in the twelfth and thirteenth grades; that is, for example, 20 per cent of the ninth-grade pupils were able to write excellent papers.

Brown and Haggerty (33) measured the weekly work of seventy-eight ninth- and tenth-grade pupils for twelve weeks, one composition a week, using the Harvard-Newton scale. They found that improvement was about equal in the four forms of discourse, averaging

TABLE LIII

MEDIAN SCORES IN ENGLISH COMPOSITION (HUDELSON SCALE) IN PHILADELPHIA HIGH SCHOOLS AS COMPARED WITH STANDARD SCORES

Grade	Average for Philadelphia	Standard Score
VIII	5.00	4.54
IX	4.33	4.80
X	5.17	5.16
XI	4.88	5.56
XII	5.51	5.96

4.2 scale points (scale ranges from 1 to 100) for Classes I and III and 5.2 points for Class II. Class I, the lowest in academic standing, made the best record for improvement in quality.

Lowe evaluated the composition work of Philadelphia high schools by using the Hudelson English Composition Scale, testing about five hundred pupils in each grade in twelve different schools. He compared achievements by grades with the standard scores of pupils in a large number of high schools in different cities. The results are shown in Table LIII (138: 109).

As shown in Table LIV (43: 369), Certain compared the composition scores in Grades IX–XII in an unnamed city in Michigan with the records of Grades VI, VII, and VIII in elementary schools in Detroit. The improvement in the high-school years as estimated by Trabue (239: 79) is presented for comparison in Table LV (43: 370).

c) GRADE STANDARDS

Ability in composition is a highly individual matter; pupils in a single class have a range of ability equivalent to at least six grades

TABLE LIV

X-TOWN MEDIANS IN HIGH-SCHOOL COMPOSITION COMPARED WITH DETROIT MEDIANS IN ELEMENTARY-SCHOOL COMPOSITION, 1920–21

GRADE	DETROIT		X-TOWN—SURVEY TEST
	Initial Test	Final Test	
VI B	3.86	4.87	.....
VI A	4.31	5.14	.....
VII B	4.70	5.50	.....
VII A	5.08	5.75	.....
VIII B	5.48	6.13	.....
VIII A	5.95	6.45	.....
IX	.....	.....	4.79
X	.....	.....	4.95
XI	.....	.....	5.21
XII	.....	.....	5.13

TABLE LV*

MEDIANS AND DEVELOPMENT IN QUALITY OF COMPOSITION IN X-TOWN AND OTHER PLACES

GRADE	ACTUAL ATTAINMENT OF PUPILS						RESEARCH STANDARDS—TRABUE	
	X-Town	South River, New Jersey	St. Paul, Minnesota	Mobile County, Alabama	Nassau County, New York	54 High Schools in 35 States	Ideal	Upper 75 Per Cent of Classes
IX	4.79	5.18	5.83	5.18	5.00	4.99	6.01	5.50
X	4.95	5.02	5.66	5.02	5.25	5.88	6.50	6.00
XI	5.21	5.95	6.27	5.95	5.68	6.38	6.90	6.40
XII	5.13	6.30	6.64	6.30	5.94	6.69	7.20	6.70
Amount of progress in quality of composition	.34	1.12	.82	1.21	.94	1.70	1.19	1.20

* Rearranged from author's data.

(**27**); students in a college class range upward from sixth-grade medians (**25**: 580). It is very questionable whether a fourth-grade or a ninth-grade or a twelfth-grade median should be considered a

standard. Each grade overlaps by from 60 to 85 per cent the grades immediately above and below it (254: 47). Table LVI (254: 46) shows the extent of overlapping as presented by Willing in terms of percentage of papers coincident in value or merit in the different grades in Denver as measured by the Willing scale.

TABLE LVI*

PERCENTAGE OF OVERLAPPING IN COMPOSITION ABILITY OF DENVER SCHOOL CHILDREN

Grade	Grade VIII A	Grade VII A	Grade VI A	Grade V A
IV A	11	17	34	37
V A	30	47	70	.....
VI A	50	67	.....	.....
VII A	83	.....	.....	.....

* This table is to be read as follows: The composition ability of the upper 11 per cent of the pupils in Grade IV A coincides with the composition ability of the lower 11 per cent of the pupils in Grade VIII A.

TABLE LVII*

MEDIAN QUARTILE DEVIATION AND RANGE OF SCORES OF COMPOSITIONS WRITTEN BY PUPILS IN DENVER

Grade	Median Quartile Deviation	Range
IV A	5.6	3.1– 9.1
V A	5.8	5.0– 8.1
VI A	5.9	2.1–10.6
VII A	6.6	2.7– 8.1
VIII A	7.0	2.4–11.8

* Rearranged from author's data.

Table LVII (254: 51) shows the extent of the diversity of composition attainments in the schools of Denver as presented by Willing in another way.

The exceedingly wide range of language and composition attainments is an outstanding fact for English teachers to face. The danger of using class medians as grade standards is obvious; 50 per cent of the pupils in any grade should do better than such a standard. Overemphasis on such a questionable standard may lead teachers to accept mediocre work from superior pupils and to demand work far beyond the capacities of the less capable pupils. With full recognition of such possible abuses, workers in school surveys have brought

together data from various centers to determine tentative grade norms or standards of composition achievement expressed in Hillegas terms. Most widely used are the compilations made by Courtis and Trabue, shown in Table LVIII (**61**: 236) and Table LIX (**239**: 79), respectively.

Tables LVIII and LIX show achievement medians—the degree of excellence that was reached by the average pupil in the schools

TABLE LVIII*

COMPARATIVE DATA FOR QUALITY OF COMPOSITIONS (NASSAU-HILLEGAS TERMS)

SCHOOL SYSTEM	GRADES								
	IV	V	VI	VII	VIII	IX	X	XI	XII
Gary, Indiana	30	33	33	40	46	47	56	64	62
Butte, Montana	23	28	34	38	41	....	....	....	....
Salt Lake City, Utah†	29	31	38	44	54	....	....	....	....
Nassau County, New York	28	34	38	42	46	50	53	57	59
Mobile, Alabama	33	38	46	50	....	67	69	72	75
South River, New Jersey	23	26	38	48	56	52	50	59	63
Chatham, New Jersey	29	28	41	40	53	....	....	....	....
Detroit, Michigan	33	46	47	53	61	....	....	....	....
Fifty-four high schools	....	....	....	....	....	50	59	64	67
Baltimore, Maryland‡	26	33	39	48	54	....	....	....	....
St. Paul, Minnesota‡	20	34	35	41	50	....	....	....	....
Hackensack, New Jersey‡	27	32	40	44	54	....	....	....	....
Janesville, Wisconsin	24	28	37	38	45	....	....	....	....
Richmond, Indiana‡	29	33	38	39	44	....	....	....	....
Austin, Minnesota‡	21	26	36	45	46	....	....	....	....
St. Cloud, Minnesota‡	34	42	50	50	61	....	....	....	....

* Rearranged from author's data.

† The values for Salt Lake City should probably be raised 7 points to be comparable with the values for the other centers because they were derived in a peculiar manner.

‡ The data are rearranged from Table XXXVIII, "Comparison of the Quality of Written Composition in St. Cloud and Elsewhere," in *Report of the Public Schools of St. Cloud, Minnesota, for 1920–1921, 1921–1922, and First Half of 1922–1923* (p. 132).

studied. How may the standards for 75 per cent of the pupils in any grade be determined? Using the compositions written in the Nassau County survey, Trabue derived Table LX (**239**: 81), indicating that the quality of achievement for 75 per cent of a class is from .51 to .77 of a unit lower than the quality of achievement for 50 per cent of the class.

4. THE INVENTIVE ELEMENTS OF EXPRESSION

English teachers usually assume that pupils may be classified into three groups with respect to instruction in composition: (1)

pupils who are incapable of real productive effort; with such pupils elementary rhetorical and grammatical correctness is all that can profitably be attempted; (2) pupils who have been so crushed by

TABLE LIX*

MEDIAN ACHIEVEMENTS IN ENGLISH COMPOSITION BY GRADES (HILLEGAS SCALE)

SCHOOL SYSTEM	GRADES								
	IV	V	VI	VII	VIII	IX	X	XI	XII
Lead, South Dakota	3.57	4.11	4.64	5.01	5.57	....	....	....	....
Newark, New Jersey (one school)	2.39	2.51	3.56	4.33	5.27	....	..	....	....
Ethical Culture School, New York City	....	4.01	4.72	5.39	5.74	....	....	....	....
Chatham, New Jersey	2.95	2.85	4.10	4.02	5.29	....	....	....	....
Salt Lake City, Utah	3.58	3.84	4.61	5.16	6.37	....	....	....	....
Butte, Montana	2.34	2.80	3.41	3.77	4.11	....	....	....	....
Nassau County, New York	2.76	3.42	3.82	4.18	4.56	5.00	5.25	5.68	5.94
South River, New Jersey	2.31	2.55	3.78	4.75	5.62	5.18	5.02	5.95	6.30
Mobile County, Alabama	3.20	3.91	4.34	4.22	....	5.56	6.38	6.05	6.77
Mobile, Alabama	3.31	3.85	4.60	4.95	....	6.69	6.93	7.24	7.54
Fifty-four high schools	....	....	....	....	....	4.99	5.88	6.38	6.69
Tentative standard median	3.5	4.0	4.5	5.0	5.5	6.0	6.5	6.9	7.2

* Rearranged from author's data.

TABLE LX

DIFFERENCES BETWEEN ACHIEVEMENTS OF 50 PER CENT AND OF 75 PER CENT OF THE PUPILS IN VARIOUS GRADES

Grade	Number of Compositions	Median Score (50 Per Cent of Grade Above)	Lower Quartile (75 Per Cent of Grade Above)	Difference
IV	1,046	2.76	2.25	0.51
V	930	3.42	2.72	0.70
VI	894	3.82	3.16	0.66
VII	741	4.18	3.49	0.69
VIII	607	4.56	3.79	0.77
IX	554	5.00	4.42	0.58
X	332	5.25	4.60	0.65
XI	237	5.68	4.95	0.73
XII	165	5.94	5.42	0.52

earlier drill in the mechanics of language that they have divorced spontaneity from expression; these pupils should be encouraged to give free rein to their own thoughts, imaginations, and feelings; (3) pupils who have genuine interest and ability in expression; these should be given abundant opportunities for composition with the assistance of constructive suggestions.

Three factors have been influential in confining a very large share of the English work in the upper grades and in the high school to a grind of "formal correctness." The first is the obvious fact that the appraisal of compositions merely on the basis of formal correctness demands of the teacher nothing more than industry; diligence only, not intelligence, is needed to detect mechanical errors. Greatly overburdened as composition teachers have been (103), largely as a result of their own shortsighted methods, they have too frequently compensated themselves by the easy evaluation of pupils' compositions on the basis of the presence or the absence of mechanical errors. A second factor has been and is the insistence of colleges and universities that the lower schools teach grammar, punctuation, and sentence structure, leaving to the college years the teaching of fluent, forceful, and graceful expression. "Teach your pupils to spell and to punctuate; we will teach them to think." That is the injunction of many colleges to many high schools. A third factor in stressing form over spontaneity of expression has been the lack of sympathy and co-operation between different departments in the junior and senior high schools. Compositions written in history or science or French have been appraised for content only; no attention has been given to correct or effective expression; teachers have been satisfied with correct facts and with some degree of correct thinking based on these facts. Extreme departmentalization, then, has assisted in divorcing content and form in the pupils' minds. English teachers, under the criticisms of teachers of foreign languages, who too often themselves violate good English usage, have been driven more and more into the position of drill-masters pure and simple. As a result, pupils think that subject-matter teachers care nothing about good form and that English teachers care little or nothing about anything else. Thus have good thinking and good expression been disassociated in pupils' minds.

The result of these three factors is that instruction in English composition has exalted form over substance, manner over matter, accuracy over spontaneity. The English composition class works too often under the unhealthy psychosis of fear and disgust when carrying through a written assignment.

a) RELATION BETWEEN CONTENT AND FORM IN SCHOOL COMPOSITIONS

Unfortunately the relation between content and form has very infrequently received attention from investigators. The outstanding study in this particular field was made by Colvin (55) in 1902, and nothing of importance has been done since. Attempting to discover whether the inventive power of pupils can be directed and improved, Colvin examined five sets of compositions written by pupils in the high schools of Worcester, Massachusetts, on the following assignments:

Set 1. No assignment; pupils wrote on topics of their own choosing; papers graded for five inventive qualities.

Set. 2. Free choice of topics; compositions written to be read in class and criticized by the class; papers marked but not corrected.

Sets 3, 4, and 5. Pupils given choice among five topics chosen from the topics in the first two sets which had resulted in the best imaginative power.

Topics for Set 3	Topics for Set 4	Topics for Set 5
A Sleigh Ride	A Chinese Laundry	The Adventures of a School Desk
A Voyage in an Airship in the Year 2000	A Comical Incident	A Trip to the Moon
The Woods in Autumn	A Practical Joke	An Original Story
Description of a Worcester Building	A Humorous Character	A Fairy Story
A Humorous Character or Incident [55: 404]	The Most Laughable Story I Ever Heard [55: 406]	How the Flowers Got Their Colors [55: 407]

The results, which in general show improvement in five elements of invention caused by the more stimulating topics of Sets 3, 4, and 5, are presented in Table LXI (55: 396).

All the themes in the five sets were placed in six groups for excellence in formal correctness and in six groups for excellence in invention to discover whether the obvious growth in invention was accompanied by a compensating loss in accuracy. In 51.9 per cent of the cases the maximum figures in each grade of formal correctness and in each grade of inventive ability coincided. In 54.1 per cent of the cases there was exact agreement between formal correctness and

inventive power and an approximation of agreement in most of the other cases. Colvin said:

We can reasonably conclude that there is a close relation between these two elements in written discourse and that the two are dependent variables. The more important question, however, remains: Is there any direct causal relation between these two elements? Does an increase in formal correctness cause an increase in inventive ability, and does an increase in inventive ability tend to improve formal correctness, or are the variations in these elements

TABLE LXI*

EFFECTS OF FIVE SETS OF COMPOSITION TOPICS ON FIVE ELEMENTS OF INVENTIVE POWER EXPRESSED IN PERCENTAGES OF EXCELLENCE

	Sense of Humor	Imaginative Power	Feeling	Perceptive Ability	Logical Power
Set 1:					
157 boys	19.1	11.5	2.8	1.2	21.5
307 girls	9.1	8.5	11.0	2.3	31.7
Set 2:					
96 boys	30.2	6.3	9.4	8.3	†
367 girls	16.6	8.2	12.5	9.5	†
Set 3:					
193 boys	13.9	33.6	15.5	5.7	10.9
253 girls	13.0	37.5	22.1	8.7	11.1
Set 4:					
185 boys	64.1	10.7	1.6	5.9	13.5
240 girls	65.0	11.3	3.3	8.3	14.6
Set 5:					
189 boys	24.3	87.8	60.9	10.6	38.1
263 girls	10.3	96.2	81.3	9.9	55.5

* Rearranged from author's data.
† Not calculated.

controlled by a cause that lies behind them both? The supposition that an increase in formal correctness directly causes an increase in inventive power seems hardly justifiable, since processes contributing to inventive ability precede its expression. It is difficult to imagine how a mere correctness in the expression of a psychic state could in any way influence the state itself. On the other hand, may it not be reasonably assumed that the character of an affective, intellectual, or conative state determines somewhat the form in which that state shall seek expression, and that, if we succeed in stimulating the elements of inventive ability, we shall likewise succeed in improving the mode in which those elements find expression? [**55**: 418]

The increase in inventive power was paralleled throughout by an increase in formal correctness.

While this study, made in 1900–1901, used somewhat informal

methods of appraisal and its results cannot have been very accurate, it is, nevertheless, one of the most enlightening studies in conception, in scope, and in suggestions as to a very important issue.

In a similar study some years later Colvin and Meyer examined three thousand compositions written by pupils throughout eight years of school life. Record was made of the visual, auditory, tactile, pain, olfactory, gustatory, organic, and muscular images among the more simple forms of imagination, while the more complex types were studied under the heads of scientific, fairy-story, nature-myth, heroic, dramatic, religious, and melancholic images. Exact gradation was, of course, not reached; the determination of the percentage value of any imaginative element would be impossible. The compositions were divided into six categories of excellence for each imaginative element and into six categories for mechanical excellence. The most striking conclusion was that there was at about the onset of puberty a decline in the first four lower types of imagination with the exception of the visual type and in the last four lower types with the exception of the olfactory; decline appeared also in all the higher types. In the case of the higher types partial recovery occurred during the high-school years, but in the lower types the decline continued without recovery. Of the fifteen varieties of imagination, all but four showed a decline at the beginning of adolescence.

> The visual escapes this tendency because it is not so deeply centered in the affective being of the child, which suffers the greatest upheaval [at adolescence]. It is more intellectual and less vital. It is in a sense formal and external; it is an interesting fact that the curves for formal correctness and for visual imagination run practically parallel for the boys and nearly so for the girls during the entire eight years under consideration. This probably means that the visual imagery has become devitalized and symbolic. It is a significant fact for education to consider [**56**: 87].

Logical power developed with both sexes throughout the school course, the curve being quite similar to that for formal correctness. The sense of humor was relatively low for both sexes; it ran somewhat higher for boys and reached its maximum in the seventh grade. The sense of feeling was high for both sexes and showed constant growth. Colvin said that (1) in general, imaginative elements showed decline; (2) our system does little to cultivate imagination; (3) the only

type that showed substantial growth was the visual; and (4) there is little place for humor in school work.

> The above may be summed up by the statement that the school puts a premium on mechanical exactness, formal expression, and rhetorical correctness. It ignores, or actually hinders, the expression of the deeper self. It educates only a part of the child [56: 93].

These pioneer studies of Colvin, incomparably more important than the counting of errors in spelling or in grammar, do not appear to have been followed up by later investigators. Here is a fruitful field, waiting students who will improve on Colvin's methods by following the development of particular groups of children through the junior and senior high schools and by refining the methods of estimating degrees of excellence in the various elements.

b) PUPILS' ABILITY TO ORGANIZE IDEAS LOGICALLY

After criticizing instruments designed to measure general merit in composition, Greene asserted that language ability is very complex, made up of many elements. The three main divisions of language ability are formal features, such as spelling and punctuation; grammatical factors, such as errors in speech; and rhetorical factors, such as the choice of words, the suitability of the materials, and the logical organization of the subject matter. Asserting that elements in the first two categories are easy to measure, he chose for study the third, perhaps the most elusive of all. He confronted pupils in Grades III–XII with two forms of tests of equal ascending degrees of difficulty, composed of related ideas in jumbled order, and tested their ability to determine logical relations by rearranging the jumbled ideas in complete sentences. The results are shown in Table LXII (85: 18).

Greene found the correlation between organization scores and composition scores as determined by the Hillegas scale to be fairly high—.40, .54, and .54 with three groups of pupils; he concluded that the tests of organization "are rather efficient measures of an important factor in general merit of written composition" (85: 27). Organization scores and mental age as measured by the Stanford Revision of the Binet-Simon Tests showed correlations of .50 and .405 for small groups of seventy-one and eighty-three pupils, respectively. Greene

thought it not surprising that a measure of such a complex ability as language should show a moderately high correlation with general intelligence. Greene's moderately high correlations represented the relation between general intelligence and ability to organize ideas. Colvin (55) discovered a fairly high correlation between formal correctness and inventive ability. Willing, who gave seventy junior high school pupils twenty-nine tests in the formal aspects of language, found that "performance in any one of the formal aspects of composition (capitalization, punctuation, etc.) did not serve well

TABLE LXII*

ORGANIZATION SCORES OF 3,706 PUPILS

Grade	Number of Pupils	Median Score	Median Deviation
III	378	16.8	11.4
IV	406	29.1	11.5
V	474	33.2	11.3
VI	587	39.6	10.2
VII	468	45.9	11.3
VIII	459	47.4	11.8
IX	376	52.0	11.5
X	228	61.3	13.3
XI	160	64.8	13.7
XII	170	69.5	10.9

* Rearranged from author's data.

to predict performance in any other aspect. The range of intercorrelations was from .21 to .54, and the average was .37" (255: 50). From such data, one inference at least worth further investigation is that instructional stress laid on the inventing, organizing aspects of composition may possibly result in improving the mechanics of expression.

Precision in thinking.—Simpson (213) investigated the ability of two fifth-grade classes to apply the principle of logical definition. The pupils were asked to define "dog," "dime," "garage," and seven other common substantives. After an eighteen-minute lesson on the method of logical definition using "breakfast," "hammer," and similar words, they again defined the first ten words. Perceptible improvement was shown in 34 per cent of the definitions. Similar training was given in six lessons of thirty-five minutes each to one group

of sixth-grade pupils, while a control group had no training. The instructed group showed 61 per cent improvement; the uninstructed group, 10 per cent. Similar experiments with likenesses and differences after six lessons produced 24 per cent improvement for the instructed group as against 4 per cent for the control group. An interesting side light is that one-half of the total gain in definition resulted from the first period of instruction, while improvement in stating likenesses and differences continued without diminution through six practice periods. A final test consisting of six problems of practical reasoning given to both groups, however, yielded no evidence that the results of instruction had carried over into reasoning situations. The children tended to rely on the judgments of others; they did not weigh evidence for themselves. The positive statements of someone else were their major reliance. This conclusion was supported as to older pupils by an investigation made by Lyman (**144**) to estimate the ability of high-school Seniors to detect and explain common errors in reasoning. Haig (**91**) constructed a test designed to measure power to organize thought.

c) CHILDREN'S CAPACITY FOR ABSTRACT THOUGHT

Ellison classified twelve thousand definitions secured from 253 girls and 219 boys from eight to fifteen years of age into three general groups: (1) definitions by samples, that is, definitions which place the reader or hearer in a position to define for himself; (2) definitions by abstract phrases, that is, definitions that use "when," "that," and "if" clauses; and (3) definitions by equivalents, that is, definitions that make use of synonyms.

> Summing all this up in a single word, we may say that such a mastery of common abstract ideas and of language as would make possible reasonably perfect definitions is nearly or quite wanting in children of thirteen and under, though for several years before that time the abstractions have been clearly enough grasped and the vocabulary has been large enough to allow a good deal of definition by synonyms. Still earlier the children seem to hold the idea in a distinctly concrete fashion and to convey it, when required to do so, by means of concrete examples variously expressed, while the youngest children of all in many cases cite examples of the use instead of really giving the meaning of the word, possibly for the reason that at that stage the idea itself cannot be brought clearly before consciousness [**74**: 257–58].

The studies made by Ellison and Simpson might presumably be denied the right to appear in this monograph on the ground that they

have but remote connection with problems of English composition. However, English instruction will not progress very rapidly until investigators and teachers begin to realize that effective expression can never advance beyond effective thinking except, to be sure, in the one element with which, unfortunately, composition-teaching is mainly concerned—correctness. Overemphasis on this aspect of language is losing English teachers their opportunity to contribute to the expanding intellectual abilities of their pupils.

5. CONCLUSIONS

Concerning the studies reviewed in this chapter several comments appear to be justified.

1. Composition scales attempt to measure very complex products; vigorous critics have questioned the measurability of "general quality," and several studies, notably those made by Dolch (69) and Leonard (130), have indicated that little or no correlation of excellence exists between the content, the organization, and the mechanics of a composition. These characteristics should be measured separately.

2. Such refinements as have been made in composition scales since the first attempt of Bliss in 1912 have been in the direction of separate measures for the major constituents of composition excellence, particularly the separation of content and form. In this direction probably lies progress.

3. The justification of collective statistical treatment of opinions and judgments, basic in the construction of all composition scales, is open to serious criticism, which does not appear to have been adequately answered.

4. The measurement of compositions has quite universally ignored the objective and subjective influences that enter into the preparation of pupils' products. The intrinsic merit of pupils' products, if reliably determined, has, of course, unquestionable significance; but, after all, teaching interests ought to be mainly concerned with the children who produce the compositions and with the conditions under which they work.

5. Objective and specific categories of excellence are generally inadequate in composition scales.

6. Teachers' evaluations of pupils' products are often gross viola-

tions of justice; the disparity of standards of promotion and grade excellence as between schools is frequently equivalent to several years of normal composition growth.

7. There is a noticeable relation between pupils' success in school and their abilities in composition as these two elements are now measured. Apparently a fair correlation exists between general intelligence and ability in composition.

8. The evidence is about equally divided as to whether the use of composition scales tends to reduce the disparity of teachers' marks. That extensive training in the use of scales is effective in this direction is certain.

9. Naturally, the value of attempts to establish grade norms of attainment depends on the reliability of the scales and their application. It is now generally accepted that about .5 of a step on a ten-point scale is the normal composition improvement in one year.

10. Especially are the inventive elements of expression neglected or, at best, inadequately considered in all scales and investigations. Even if the importance of teaching pupils to be correct in the formal elements of expression is granted, it is at least questionable whether instruction and investigation in this phase of language training have not been seriously overstressed and the inventive, constructive aspects of expression correspondingly neglected. Twenty-five years ago Colvin (**55**) pioneered in attempting to discover whether the inventive abilities of pupils can be improved through composition. With the possible exception of the studies made by Hudelson concerning composition topics (pp. 147–48), this significant line of inquiry has been neglected. Colvin's second study (**56**) is the only one found which attempts seriously to link the composition ability of pupils with their complex and varied and changing mental life, especially at the junior high school age. Techniques of investigation need to be developed which will reveal the growth of thought processes necessary for effective expression.

11. Almost equally neglected is the relation between formal correctness and invention. The presumption is that such relation exists, that growth in inventiveness may be accompanied by improvement in mechanics. Experiments in this line are seriously needed. Studies

of the effect of certain topics on fluency and accuracy (55, 56) point in the right direction.

12. Next in importance to inventiveness of mind in all expression is the ability to arrange ideas systematically, to organize thinking for effective presentation. Some scale-makers, notably Van Wagenen (244) and Willing (254), have attempted to account for this factor, but facts as to the development of this ability and as to the most suitable methods of developing it are as yet undiscovered. Greene (85) and a few others have made a small beginning, and Leonard's (130) recent experiments in constructing scales that will test children's ability to organize ideas quite apart from all consideration of punctuation, grammar, and form of manuscript are very suggestive. National English committees insist that in composition *content* is of first importance; *organization* of ideas, second; and *form* (matters of careful scrutiny), third. Yet research has been confined almost exclusively to form.

13. In general, measurements in the field of composition, quite in line with the customary practices in teaching, have exalted mechanical and rhetorical elements and have neglected originality, freshness, and inventiveness.

CHAPTER V

INVESTIGATIONS IN METHODS OF TEACHING

The studies reviewed in the earlier chapters have dealt primarily with the objectives of instruction and with the content of the curriculum. Consideration now turns to investigations which attempt to evaluate methods of teaching. Revelations of the wide variations existing in the language capacities and attainments of children have, of course, been accompanied by a multitude of informal classroom experiments and a fewfor mal experiments in individualized instruction. A few investigators, such as Stephens (**220**), appear to have been concerned with the results of differentiated curriculums in language and composition. No branch of the curriculum ought to respond with greater earnestness to the demand that regimented instruction for all pupils be supplanted by instruction adapted to individual needs. The studies reviewed first in this chapter deal mainly with language as distinguished from composition.

1. INDIVIDUAL AND GROUP INSTRUCTION

The first section of this chapter considers (1) studies which evaluate the methods of classifying pupils on the basis of ability for language instruction, (2) studies which estimate the progress of pupils under differentiated instruction, (3) studies which determine the results of instruction given to groups of differing ability, and (4) studies concerned primarily with the progress of gifted pupils.

a) METHODS OF DETERMINING CLASSIFICATION OF PUPILS AS TO ABILITY

When ability grouping was in its early stages, schools often classified pupils on the basis of the results of intelligence tests alone. Even if such tests are conceded to be accurate measures of intelligence, many are unwilling to concede that proficiency in spelling, grammar, punctuation, and the like are correlative with native intelligence. It is quite conceivable that the most capable pupil in a seventh grade is the most illiterate. At any rate, investigators have

demonstrated that efficient classification for ability grouping in language-composition cannot be based on intelligence quotients alone. In the best practice of today intelligence quotients are used as the first rough sieve for the classification of pupils. To determine grouping for language instruction, the results of appropriate language tests, estimates based on earlier school records, and short-term tryouts in assigned sections are now considered necessary. From the abundant evidence on this point, representative articles are selected.

Unreliability of ability grouping based on intelligence quotients.— Washburne presented data showing the inadvisability of grouping children on the basis of their intelligence quotients and then treating each group as if it were homogeneous. Under individual instruction, children whose I.Q.'s were 122, exactly at the upper quartile of all those studied, were compared with children whose I.Q.'s were 109, the median for all children in the Winnetka schools. They were also compared with other children whose I.Q.'s were 100, the lower quartile for all pupils studied. The results showed that the pupils with I.Q.'s of 122 made normal progress; those with I.Q.'s of 109 made progress more than four months in advance of normal; whereas the group with the lowest I.Q.'s, exactly 100, made normal progress. Washburne concluded that "error comes when one tries to apply what is true of central tendencies of large groups to all the various individuals who make up these groups" (**249**: 255). Again, "under a plan of classification which grouped children by intelligence quotients, nearly half of the children in the gifted group would be misplaced, while an equal number in the middle group would be misplaced" (**249**: 258). Hobson (**100**: 75) similarly found very low correlation between the intelligence quotients and the accomplishment ratios of forty-nine ninth-grade pupils; correlations as measured by three sets of tests were .318, .310, and .477, respectively. Incidentally, Hobson pointed out that efficiency of instruction and of class effort must be judged by a ratio between pupil accomplishment and pupil ability, that is, by an accomplishment ratio.

Testing ability grouping for instructional purposes in language.— To sixteen sections of seventh-grade pupils Ruhlen gave a series of tests in language, namely, classification of sentences, recognition of

complete and incomplete sentences, and recognition of subject and predicate and of all parts of speech. The pupils had been previously grouped on the basis of probable learning rate and lower-grade records into X ("fast"), Y ("average"), and Z ("slow") sections. Group medians are shown in Table LXIII (**192**: 443).

Although the medians gradually drop from the X sections to the Z sections, the extreme overlapping represented by the average range (many pupils in the Z sections surpassing the median percentage of the X sections) is clear indication that for the purpose of language instruction the classifications used by the school in question are without value. The author did not comment on this, a clear inference from her data.

TABLE LXIII

RECORDS OF GROUPS CLASSIFIED ACCORDING TO ABILITY

Group	Sections	Median Score	Median Percentage	Average Range	Percentage of Range
X.....	1– 4	43.1	86.3	53.1–98.8	45.7
Y.....	5–12	38.2	76.5	43.9–95.1	51.2
Z.....	13–16	31.9	63.9	30.9–91.8	60.9

Determining the need for individualizing language instruction through trial exercises.—Howarth (**106**), experimenting with forty fifth-grade pupils, reported wide differences in the rate of progress in completing three exercise books in language. Eleven of the pupils scored exactly 12 on the Trabue completion tests; of these, one pupil required thirty thirty-minute periods to complete three language exercise books, while one required fifty-one periods of thirty minutes each. The other pupils ranged between these extremes; the progress of individuals was very uneven. Apparently the Trabue completion tests are not satisfactory in classifying pupils for group instruction. Rates of progress are so unequal that great waste is certain to occur in any uniform-group procedure. Moreover, the difficulties encountered by individuals are so various as to render group instruction extremely wasteful.

b) PUPIL PROGRESS UNDER DIFFERENTIATED INSTRUCTION

The next group of studies estimate various phases of pupil progress under differentiated instruction. As Hobson has suggested

(100: 75), actual progress made by pupils, however valuable, is a less reliable measure than an accomplishment ratio which indicates the progress of an individual pupil with relation to his ability to progress. Most of the studies cited have failed to consider this vital point.

Determining specific language needs of individuals.—Wilson (259) very rightly affirmed that language-testing is little more than an educational gesture unless the results are utilized in determining for groups of pupils and for individual pupils the language specifics upon which they need to be drilled. A distribution of twenty-nine language errors in a paragraph test given to 181 third-grade pupils in seven schools in Duluth, Minnesota, revealed medians of errors unrecognized as between thirteen and twenty. However, four pupils erred in twenty-five specifics out of twenty-nine. Pupils in the seventh grade and pupils in the high school showed almost as great a diversity of attainment with respect to the twenty-nine language errors. A graph for each class was constructed to show each pupil exactly where he stood in relation to his fellows and indicated to him exactly the errors he needed to overcome. This makes the language problem specific for each child and furnishes a strong motive for work.

Comparison of group and individual instruction in English usage.—Shepherd (209) taught a seventh-grade class by the group method and a comparable class by individual instruction. All children in the first group studied the same lessons in language usage; mistakes were discussed in class, but no individual records were kept; consideration was confined to papers written in the English class; pupils who wrote slovenly English were compelled to do much re-writing. The second group of pupils studied language usages according to their individual needs as revealed by tests; lessons assigned were determined for each pupil by the errors he made in his own compositions; each pupil kept a record of his own errors; papers written in science and geography classes were used as the basis of many individual exercises in usage. A similar inventory of each pupil's ability and needs was an essential part of Santee's program (197).

Shepherd (210: 584), comparing the results of the two types of instruction, found that at the end of a year 43 per cent of the first group were lesson-learners; that is, the pupils practiced good usage very much better in their English papers, by 30 points or more, than

in their science papers. Their ability in good usage was chiefly an asset to placate their English instructor. Under the plan of individual instruction, lesson-learners were reduced to 17 per cent of the class. The results clearly indicate the superiority of the second method.

Other evidence showed the advantage of the individual method. At the end of the year 91 per cent of the pupils exceeded the seventh-grade standard for the Wisconsin Test of Grammatical Correctness A, and 51 per cent of them exceeded the ninth-grade standard. Still another check was made in the case of twenty-two of these pupils who, upon entering the ninth grade (no eighth grade in the school), were excused from the Freshman course in correct usage. All their instructors were asked to report concerning the English of work. Of fifty-eight judgments reported, fifty-three were affirmative; the five negative replies concerned three of the twenty-two pupils. Shepherd's follow-up work, to discover both the effects of English instruction in the writing of classes other than English and the hold-over effects after lapses of time, characterizes her as one of the best investigators in this field.

Results of individualized instruction in language details.—Washburne (250) reported rather startling superiority of children in Grades V–VII trained by individual instruction in punctuation and capitalization. The superiority of pupils given individual instruction over pupils of comparable mental age given group instruction only was between 15 and 16 per cent as estimated by means of the Pressey tests in capitalization and punctuation. However, as Washburne pointed out, the Pressey tests are in reality correction-of-error tests, and the pupils in the experimental groups had been especially trained in correcting errors. The extent to which this factor was a cause of the 15 to 16 per cent superiority is problematical.

Henry (96) reported an experiment in which fifth-grade pupils under intensive individual instruction reached the seventh-grade standard in composition (Hillegas scale), and sixth-grade pupils almost reached the ninth-grade standard in language (Trabue's completion test), the pupils doing two years of work in one year.

c) RESULTS OF INSTRUCTION IN ABILITY GROUPS

Several investigators have carried out experiments to determine the results of ability grouping with reference to the rate of learning and the effect of drill. Horn (**104**) summarized the movement.

Differentiation in rate of learning.—McCormick (**147**) classified ninth-grade pupils into ability groups on the basis of the results of intelligence tests and eighth-grade ratings, having three sections of superior ability, two sections of inferior ability, and two sections of mixed ability. Attempts were made to adjust instruction, both in amount of materials covered and in methods of instruction, to the superior and the inferior sections. The superior sections advanced three times as rapidly as did the inferior; for example, one day sufficed for the former while four days were required by the latter in learning the structure and the punctuation of the compound sentence. However, tests given the groups at the close of instruction designed to estimate the control over the principles of usage that had been studied showed that the inferior group made much the better showing. No pupil in either group scored below 70; 23 per cent of the inferior pupils scored 100, while only 8.6 per cent of the superior pupils attained that proficiency. Apparently the superior sections advanced too rapidly for mastery of language details.

The results of differentiated instruction with emphasis on drill.—An experiment was reported (**75**) as distributing sixty-five ninth-grade pupils in low, average, and high sections on the basis of their showing in two language tests, two spelling tests, and one composition test. The median number of errors made by the pupils in the low group (C) was 31; by the pupils in the average group (B), 22; and by the pupils in the high group (A), 11. To the C group was given intensive training in spelling, proofreading exercises, punctuation, and a minimal list of language principles, accompanied by brief themes written almost daily in class. Printed outlines of essentials were placed in the hands of the pupils, and an effort was made to arouse their language conscience through self-criticism. The B group had no such intensive drill, but much writing done by them in class was subjected to self-criticism for language errors. The A group received only incidental suggestions concerning language details. At the close of

the experiment the C group had been brought to an equality with the B group, which itself showed a slight gain. The A group showed a slight loss. The median number of errors rose from 11 to 13; the median of the B group fell from 22 to 20; the median of the C group fell from 31 to 20. The report affirmed that intensive work may bring illiterates up to a class level. It must be remembered, however, that to accomplish this purpose the C group was deprived of much of the reading experience by which the other groups profited (**75**: 788).

Ninth-grade pupils in the high school at Rock Island, Illinois, were distributed into three ability groups by means of the Illinois examination and teachers' judgments (**128**). Certain minimum language requirements were established for each group after preliminary tests had revealed the language needs especially prevalent in the respective groups. A few basic language minimals were assigned to the C group, a few more to the B group, and a considerably longer list to the A group. The I.Q. range for the C group was 70–96; for the B group, 93–115; for the A group, 108–126. After the preliminary grammar tests, misplacements found in the original classification to the extent of 13.4 per cent of the pupils were remedied by shifts made between sections. Instruction in the different groups varied chiefly as follows: (1) C group: three times as much drill as in the A group, occupying one-third of the class time; presentation with many examples; much time for stimulating ideas and personal interests; materials in language quite elementary; no time for artistry of expression. (2) B group: twice as much time for drill as in the A group; as much time for presentation as in the A group; about half as much time for extra work as in the A group. (3) A group: comparatively little time for drill; much time for extra work and individual and group activities; more varied individual assignments; more presentation in class of original material.

Certain final tests showed that the average gain per pupil in the homogeneous sections was materially larger than the average gain per pupil in mixed instructional sections used as control groups. However, the value of such data is very questionable; a 51 per cent gain in composition in one semester is unthinkable; a 69 per cent gain in grammar is possible but not at all probable. The results of

this experiment, as shown in Table LXIV (128: 74), could not have been accurately calculated.

Santee (197) also reported the success of ability grouping for instructional purposes in the junior high school grades. The percentage of failures in English among 1,100 pupils during eight semesters dropped materially as soon as remedial instruction was provided in homogeneous groups; failures gradually diminished from 33 per cent in 1919 to 12 per cent in 1923. Creek and McKee (64) reported desirable effects of ability grouping for Freshman English composi-

TABLE LXIV*

PERCENTAGE OF PROGRESS OF PUPILS IN GRAMMAR AND IN COMPOSITION IN ONE SEMESTER

	Classified Pupils	Unclassified Pupils
C group:		
Grammar	53.7	48.0
Composition	40.3	39.0
B group:		
Grammar	60.5	43.0
Composition	43.6	3.0
A group:		
Grammar	69.0	59.0
Composition	51.0	46.0

* Rearranged from author's data.

tion in Purdue University for the years 1920–26. Remedial instruction, given to from about 10 to 12 per cent of each Freshman class shown by tests to be deficient in English, materially reduced the number of failures in the Freshman year. Billett (17) reported a similar study.

Results of intensive remedial work.—A pre-English ninth-grade group in the Central High School, Omaha, Nebraska, was given especially devised instruction (227). For this group were selected fifty-two pupils, the 10 per cent of the entering class who were the lowest in an elimination test of five problems. The group had seventy-nine ratings in the regular classes of English I and II in the following school year, resulting in 23 per cent failure, 38 per cent with marks of C, 36 per cent with marks of B, and 2 per cent with marks of A. The B and A marks represent a substantial gain for such pupils. For several years preceding, the failures in ninth-grade English had

averaged from 20 to 25 per cent of all ninth-grade entrants. Such work in an English clinic given to high-school entrants seriously deficient in English materially reduced the ninth-grade failures.

In 1920–21, 495 pupils in twelve sections of first- and second-year English in the high school at Topeka, Kansas, were placed in ability groups designated "strong," "weak," and "mixed" (58). The Freshmen classes were segregated by means of mental tests only; the Sophomore classes were determined by means of mental tests and school marks. Each English teacher taught one section of each type. The effects of the ability grouping were estimated by means of special tests devised by a committee of teachers and by term marks. The results indicated that pupils of superior ability did their work equally well in strong and in mixed sections. Pupils of inferior ability profited slightly by separation from the superior pupils. Constance and Hanna (57) found favorable results from ability grouping with college Freshmen. Studies such as these are highly commendable attempts of English departments to appraise their own teaching efficiency. As objective studies, however, they are at best open to several serious criticisms: neither the methods of determining classifications nor the means of estimating the results are entirely acceptable; such experiments fail to segregate a single variable of instruction, and they are conducted with inadequate control of teaching conditions.

Platt reported the results of a concentrated attack on twenty-one usage errors for one year by the entire English staff of a high school of fifteen hundred pupils. The results were tested by compositions written in September, February, and June. Only the twenty-one minimum language requirements were scored. Table LXV (174: 612) indicates that violations of the twenty-one requirements were materially reduced in number.

Schwegler (199) worked with two experimental groups and two control groups of eleventh-grade pupils in a high school of commerce. In the experimental classes attention was concentrated on twenty-five co-ordinate conjunctions, fifty-six subordinate conjunctions, eleven relative pronouns, and fifty-nine prepositions. All four groups were given a completion test and a composition test both at the beginning of the experiment and after the experimental classes

had had seven intensive lessons in the use of connectives. The tests were carefully examined with respect to all connectives. In the completion test the experimental groups gained 16.4 points as compared with a gain of 6.3 points for the control groups. Similar striking superiority was shown in the compositions of the experimental groups; the use of "and" as a conjunction was greatly reduced and the use of other co-ordinate and subordinate conjunctions compensatingly increased. Wellons (**253**) conducted a somewhat similar experiment and found that intensive practice combined with detailed instruction results in much greater improvement in specific language usages than instruction alone is able to produce.

McPhee (**150**: 146), Certain (**42**: 251), McGraw (**148**: 295), Courtis (**62**: 197), and Smith (**216**: 370) reported commendable

TABLE LXV

AVERAGE NUMBER OF USAGE ERRORS PER PAPER

Month	Freshmen	Sophomores	Juniors	Seniors
September	3.9	2.4	1.6	2.9
February	1.9	2.0	1.3	1.0
June	1.4	1.0	0.3	0.4

progress when drill was concentrated on a few language weaknesses which had been revealed by tests.

Such studies show that drill can be effective; the more drill is concentrated on a few details, the more effective that drill may be. A pertinent question concerns the compensating losses and whether the gains thus made will be lasting. From Table LXV it will be noticed that the Sophomore class made little gain during the first semester. Some of the Sophomore teachers attributed that failure to an excessive amount of literature during the semester. It is quite conceivable that exposure to an unusual amount of literature is more profitable than the same time spent on conjunctions, commas, question marks, personal pronouns, and spelling, especially when the reversion inevitable after intensive drill is taken into consideration. To be sure, the reason given for intensive drill on a very few details, as in Platt's study, is the establishment of a language conscience rather than perfection in the few details themselves.

d) PROGRESS MADE BY GIFTED PUPILS

Accomplishments of gifted children.—Cobb and Taylor (**54**) compared the predicted achievement of fifty-two superior pupils in Grades III A–VI B with their actual achievement. Every pupil in the group was above the average for his chronological age in all the divisions of the Stanford Achievement Test. The median educational age of the pupils was one and one-half years higher than their median grade placement. More than one-third of all their ratings equaled or surpassed the ratings of the ninth grade. The median I.Q. for the group was 152; the median educational quotient, 146. The average accomplishment quotient was 97, slightly below the accomplishment quotient of an ordinary class group. In a similar study with comparable subjects of somewhat lower I.Q., Coy (**63**: 62) found an accomplishment quotient of 92, which three semesters later reached 97.

A significant fact is that in language ability the pupils studied by Cobb and Taylor were far above their grades although they had been in school less than four years; half of them surpassed ninth-grade ratings in language. Moreover, there was "a general tendency for the standing in those tests which are largely dependent on language to be higher than the standing in the tests in arithmetical and scientific material. . . . . It is obvious that a great deal of their education has been obtained outside of the schoolroom. . . . . The higher medians in the language subjects . . . . [are] readily comprehensible in terms of the description of the group under consideration" (**54**: 283–84).

As shown in Table LXVI (**54**: 288), the group studied by Cobb and Taylor revealed language-usage quotients slightly inferior to those reported by Terman for a comparable group of California pupils. Terman also reported the language achievements of gifted children (**228**: 170).

Coy (**63**) estimated the composition achievements of superior fifth-grade children as measured by the Nassau County scale. The period of practice extended over seventeen weeks, and improvement was estimated by seventeen compositions, one written each week. The curve of median achievement rose from 47 at the beginning through the ninth trial, where the group reached its highest record, a

median of 54. During later trials there was a marked drop and then a slightly falling plateau of achievement. To be noted here is the fact that a rise from 47 to 54 is equivalent to more than a year of normal improvement. Additional practice in composition-writing apparently did not increase composition ability (63: 94). Coy very properly pointed out that the varying attractiveness of the topics for the seventeen compositions may have been an important factor in the rapid improvement at first, then in the drop, and finally in the slightly falling plateau (63: 96).

Patrick (169) reported the progress of a IV B class of twenty-five gifted children given special work in language for the purpose of

TABLE LXVI*

LANGUAGE-USAGE QUOTIENTS OF SPECIAL CLASSES OF GIFTED CHILDREN IN NEW YORK AND CALIFORNIA

CHRONOLOGICAL AGE	NEW YORK		CALIFORNIA	
	Number of Pupils	Language-Usage Quotient	Number of Pupils	Language-Usage Quotient
8–0 to 8–11	6	168	66	162
9–0 to 9–11	29	147	91	156
10–0 to 10–11	16	144	112	148

* Rearranged from authors' data.

acceleration. In March the Charters Diagnostic Language Test, Pronouns, Form I, yielded a median score equivalent to a VI A standard; one-half of the pupils were between the VI B and the VII A standards. One year later the same group was tested by a battery of tests, including the Charters Prognostic Language Test, Miscellaneous A, Form I. On this test the highest norm given is 22.2 for Grade VIII A. Seventy-five per cent of the group equaled or surpassed this norm. Six months later, shortly after the beginning of a new school year, the same group was tested by the Stanford Achievement Test, Advanced Examination, Form A. In all the divisions of this test, including language usage, "these pupils are apparently already doing a type of work equivalent to that done by superior high-school students" (169: 268).

Hobson reported the effect of a year's acceleration on the ac-

complishment ratios of ninth-grade pupils who had been accelerated by the omission of the English work of the eighth grade; he compared their accomplishment with that of pupils who had not been so accelerated. Seventeen pupils made up the accelerated group; forty-four, the control group. Both groups had the same instruction under the same teacher. A battery of five tests was given three times to all the children, one in silent reading, one in spelling, and three in language and composition. The results are shown in Table LXVII (100: 22, 26, 32).

TABLE LXVII*

MEDIAN ACCOMPLISHMENT QUOTIENTS OF ACCELERATED AND NON-ACCELERATED PUPILS IN NINE ENGLISH TESTS

	ACCELERATED GROUP		NON-ACCELERATED GROUP	
	Median	Range	Median	Range
Composition:				
Test 1	86	56–109	75	37–104
Test 2	94	70–111	81	33–111
Test 3	95	71–120	86	36–115
English form:				
Test 1	88	62–104	88	50–112
Test 2	102	87–118	91	61–122
Test 3	106	79–120	94	60–128
Language:				
Test 1	81	40–113	61	26–110
Test 2	107	60–123	90	40–120
Test 3	114	77–126	105	35–129

* Rearranged from author's data.

The accelerated group gained a full year of school time without loss of skill in English or loss of ability to progress in the ninth grade. Hobson presented data showing a similar gain in grammar (100: 34).

e) CONCLUSIONS

The studies so far reviewed in this chapter concern various phases of diversified instruction in language-composition for pupils of varying language capacities and attainments. They indicate that suitable ability groups for language instruction cannot be determined by general-intelligence tests alone. They appear to reveal commendable progress by pupils deficient in language when special attention is given to their individual needs. However, few of the studies attempted to ascertain whether such hard-won gains represent per-

manent attainments; the degree of reversion to former bad language habits after a period of intensive drill is not often taken into consideration. Moreover, studies which show immediate improvement as the result of extensive drill are open to serious criticism if they neglect entirely, as all the investigations here cited apparently did, the compensating losses that are certain to occur when an undue amount of time is spent on drill. Finally, the data which reveal the rapid progress of gifted pupils show that even such pupils after a reasonable amount of gain do not continue to advance beyond the normal expectancy.

Studies are needed which will follow pupils through a series of years to ascertain the relation between language and expressional efficiency on the one hand and increasing maturity and experience quite apart from any instruction in school or out of school on the other.

2. ATTITUDES OF TEACHERS AND OF PUPILS TOWARD EXPRESSION

A second major line of investigation in methods of teaching has to do primarily with pupils' attitudes concerning effectiveness and accuracy in expression. Teachers of composition, skeptical as to the values of formal theme-writing, are endeavoring to create situations which will challenge the pupils to put forth their best writing and speaking efforts. An audience, a message, and the pupils' desire to be both effective and correct are now recognized as indispensable in composition-writing. Moreover, teachers of composition, cognizant of the futility of laboriously "red-inking" finished pupil products, are endeavoring to lead pupils to appraise their own written work. Fortunately, the measurement of results by controlled experiments is becoming quite frequent. Consideration turns first to attempts to ascertain teachers' practices in appraising pupil products, second to the search for impelling motives of expression, and third to the problems involved in making pupils become their own critics.

a) CRITERIA USED BY TEACHERS IN APPRAISING WRITTEN WORK

How teachers judge compositions.—In the most comprehensive study so far made Hudelson (108: 17–30) endeavored to ascertain the weight that teachers assign to various elements in composition.

To 186 teachers of English he submitted ninety-one themes—seven original pupil compositions, each modified in one respect at a time, the other original qualities always remaining intact. The thirteen versions of the seven themes which composed the set of ninety-one were as follows:

1. Original versions.
2. Original versions, with clearness obscured.
3. Original versions, with unity violated.
4. Original versions, revamped into incomplete sentences.
5. Original versions, containing difficult words misspelled.
6. Original versions, expressed in "staccato" sentences.
7. Original versions, rendered grammatically faulty.
8. Original versions, "stepped up" into ornate diction.
9. Original versions, improved generally.
10. Original versions, containing easy words misspelled.
11. Original versions, expressed in run-on sentences.
12. Original versions, embodying words in their wrong forms.
13. Original versions, faulty as to punctuation and capitalization [**108**: 21].

Hudelson calculated (1) the median percentage scores of the 186 judges when they scored the themes as if they were ninth-grade productions, (2) the median percentage scores of 185 of the same judges when they scored the themes as if they were twelfth-grade themes, and (3) the median judgments of 180 of the same judges when they scored the themes by means of the Hudelson scale. Table LXVIII (**108**: 24) shows the rank order of the averages for the various versions by each of the three methods of scoring.

As shown in Table LXIX (**108**: 25), Hudelson calculated the average deviations of the scores on the various versions, thus determining the types of qualities in themes on which the greatest disparity of judgment existed among the scorers.

From such data Hudelson drew the following conclusions as to the factors which teachers consider in scoring themes (**108**: 27–30).

1. They recognize the merit of the best (No. 9).
2. They yield to false allurements of ornate writing (No. 8).
3. They do not severely penalize misspelling (Nos. 5 and 10).
4. All offenses in spelling, of easy and of difficult words, are considered nearly equal (Nos. 5 and 10).
5. Lack of clearness is considered the most serious weakness (No. 2).

6. Structural weaknesses and errors in capitalization and punctuation are serious offenses (Nos. 3 and 13).

7. Incomplete sentences are severely penalized (No. 4).

TABLE LXVIII

RANKING, FROM HIGHEST TO LOWEST, OF THE AVERAGE SCORES OF VARIOUS VERSIONS OF SEVEN THEMES FOR EACH OF THREE SCORINGS

Version	Ninth-Grade Percentage Ranking	Twelfth-Grade Percentage Ranking	Hudelson-Scale Ranking
1. Original	10	9	9
2. Obscure	13	13	13
3. Unity violated	7	7	6
4. Incomplete sentences	9	10	10
5. Difficult words misspelled	2	2	3
6. "Staccato" sentences	5	5	5
7. Grammatically faulty	11	11	11
8. Ornate diction	3	3	2
9. Well written	1	1	1
10. Easy words misspelled	4	4	4
11. Run-on sentences	6	6	7
12. Wrong forms of words	8	8	8
13. Faulty punctuation and capitalization	12	12	12

TABLE LXIX

RANKING, FROM LOWEST TO HIGHEST, OF THE AVERAGE DEVIATIONS OF THE SCORES ON VARIOUS VERSIONS OF SEVEN THEMES FOR EACH OF THREE SCORINGS

Version	Ninth-Grade Percentage Ranking	Twelfth-Grade Percentage Ranking	Hudelson-Scale Ranking
1. Original	13	13	12
2. Obscure	10	5	1.5
3. Unity violated	12	12	13
4. Incomplete sentences	3	3	1.5
5. Difficult words misspelled	4	4	8
6. "Staccato" sentences	9	11	10
7. Grammatically faulty	8	6	4
8. Ornate diction	2	2	5
9. Well written	1	1	3
10. Easy words misspelled	5	7	9
11. Run-on sentences	7	9	11
12. Wrong forms of words	6	10	6.5
13. Faulty punctuation and capitalization	11	8	6.5

8. "The most significant conclusion to be drawn [from Table LXIX] is that an actual, typical pupil theme is the hardest kind of composition to judge [No. 1]. There was a universal sentiment among the teachers who scored the ninety-one themes that they

should not be expected to score reliably such unnatural, unsymmetrical, lopsided productions as they found the spoiled versions to be; yet they agreed least upon the seven original compositions and most upon artificial samples! The results are virtually the same with or without the use of a scale for measuring general composition merit" (**108**: 29).

The accuracy with which teachers of English detect errors.—Leonard (**129**) submitted to 181 teachers of English a series of fifty sentences, some of which contained flagrant errors in English. Included among the sentences were statements by De Quincey, Lamb, Pater, Symonds, Bennett, Hardy, and authors of similar standing. The teachers were given the direction: "Make whatever corrections and changes you would require a high-school pupil to make." Really gross errors were undetected by large percentages of the teachers. For example, "He got it off of John" was unchanged by 25 per cent of the teachers; "Isn't there lots of them apples?" was unchanged by 39 per cent of the teachers; "went over to the Joneses," by 85 per cent; "There was two men and a boy," by 50 per cent; "sunsets like they have," by 20 per cent; and "alright," by 33 per cent. In contrast, certain idioms used by reputable writers were commonly altered by the teachers. "Private soldiers have got their own opinions of their officers" (Premier Lloyd George) was changed by 91 per cent of the teachers; "Stonehenge stood out blackly" (Hardy), by 84 per cent; and "The old poodle was to no sense agreeable" (Arnold Bennett), by 98 per cent.

Still more distressing than the weaknesses indicated is the readiness of teachers to "change a pupil's quite acceptable form, or one at least not flagrantly wrong, to one quite shockingly illiterate"; teachers are guilty of "a multitudinous array of puristic or wholly captious excisions, restatements, rearrangements, and additions which make over the pupils' own expressions into such as fit the corrector's ways of thinking and writing. Clearly, in many cases they reveal awkward and even tactless minds which 'schoolmaster' and iron out what is pleasantly individual" (**129**: 528–29). The following flagrantly wrong corrections were made repeatedly: "poles and lines and sinkers" was changed to "poles, lines and sinkers"; "as we used to" to "like we used to"; "car's full" to "cars' full, car fulls, or full

cars"; "a commercial Club" to "a Commercial Club"; "A. Charity," "Write out first name"; "Dear Helen:" to "Dear Helen,"; "horse who fairly danced with pride" to "horse which danced with pride"; "as she was lying down" to "while she was lying down"; "anyhow" to "nevertheless"; and "be sure and patch" to "be sure to patch."

These significant studies of Hudelson and Leonard lead one to question the ability of the average English teachers even to correct the most flagrant errors of their pupils. Indeed, the shortcomings thus revealed in the teachers themselves are far more serious than many of the petty errors of pupils' themes which teachers painstakingly but rather unintelligently attempt to eradicate. Moreover, the unescapable implication is that, if the burden of appraising pupil products is shifted from the teachers to the pupils themselves, the teachers as well as the pupils may be challenged to improved accuracy in writing English sentences. There can be no question that in the past twenty-five years, during which time the orgy of writing and correcting compositions has risen to its height, teacher responsibility for pupils' errors has taken the place of pupil responsibility. Confirmation is found in reports of the practices current about 1900–1902 (139: 354).

b) IMPELLING MOTIVES FOR EXPRESSION

English teachers today commonly recognize the importance of creating normal expressional situations for their pupils. No longer content with topics quite unrelated to the pupils' natural interests and activities, teachers are coming to realize that children need audience situations, need to feel the impelling motive of worthy messages, in order to produce their best expression. Competent writing or speaking always grows out of experience and reflection, neither of which is to be expected in abundance of immature boys and girls. However, if composition on any school level is to be taught at all effectively, the writing and speaking must be closely associated with the active lives of the pupils, however imperfect or immature they may be.

Haggerty pointed out the vagueness of traditional composition topics.

> The tasks assigned in English composition are likely to be indefinite and vague if not obscure. . . . . "Write a hundred-word theme on the educational

advantages of stamp-collecting; the care of the furnace; a kite combat." "Tell your feelings on making a speech." . . . . It is at once apparent that the manifold range of ideas, the possible points of view, the wide varieties of treatment make any one of these subjects a much more vague and indefinite task than assignments in other subjects are likely to be [such as "Who won the Battle of Gettysburg?" or "Decline *mensa*"] [**89:** 273].

No one can successfully deny the inadequacy of the traditional expressional situations of the school. It is therefore reassuring to realize that numerous investigators and experimenters are attempting to ascertain the relative effectiveness of various types of expressional situations as judged by pupil products.

Effects of impelling motives on effectiveness of expression.—The effects of emphasis placed on impelling motives for expression were reported by Reavis. High-school pupils in Oakland City, Indiana, were given the problem of gathering material for a history of their city, the results to be presented as reports, the form of which was left to the originality and the ingenuity of the individuals. The reports were placed on file in the library as a contribution to the history of the pupils' home city and were used as source material for a pageant which was presented later. "The pupils seemed to discover a method of work that not only made future writing easier but also gave them a consciousness of standards of attainment and a self-confidence in their own ability" (**187:** 540).

Sources of composition topics.—Counts reported the practices of senior high school teachers in fifteen cities with respect to the sources from which composition topics are chiefly drawn. The data derived from the various cities were combined for each grade and stated in figures which represent the frequency with which the various sources of topics were mentioned: personal experience, 39; literature, 26; current events, 20; recreational interests, 18; life of school, 16; science and invention, 7; vocations, 7; civics, 5; and ethics, 2 (**59:** 38). Literature occupies second place in the list, but the studies next to be reviewed indicate that English teachers are departing from the conventional practice of requiring pupils to write about literary topics and are directing them into expressional situations that are for the pupils like the situations of real life for adults. "Life-situations" is a term opposed to the academic tasks of school life often imposed upon children, who think them meaningless and useless.

"Life-situations cannot be defined in terms of the situations themselves; they must be defined in terms of the attitude of the learner. They are those situations which the child recognizes as having meaning and significance to him. This meaning and significance springs in part from the out-of-school life of the child but also to a large degree from his cumulative vicarious experience. School experience becomes real and vital in proportion as the teaching makes it so, through the use of a multiplicity of interesting details of how people live and work."[1]

Topics which third-grade pupils discuss spontaneously.—Zyve (**264**) assembled data concerning the topics which aroused spontaneous expression among thirty-one third-grade children. She set aside two fifteen-minute periods each day for free conversation, a total of 125 such periods. The I.Q.'s of the children ranged from 160 to 80; twenty-four were above 100. The pupils talked whenever they expressed a desire to do so and on topics of their free choice. Stenographic reports of all conversations were kept and analyzed. Ten major categories of themes or topics were recorded, as shown in Table LXX (**264**: 53), the frequency being estimated on the basis of the total number of words in the stenographic reports. The first twenty-seven conversation periods were grouped and are referred to in Tables LXX–LXXIII as Period I. Four other sequences of lessons were similarly grouped, constituting Periods II–V. Table LXXI (**264**: 57) indicates that in Period I the participation of the pupils was very unequal; the median of participation was less than 1 per cent. However, as the experiment proceeded, the median percentage of participation increased, evidencing "a steady leveling of differences in participation."

This was primarily a vocabulary study, but the percentage of new words used in the successive periods shows the effect of vital topics rich enough in content to stimulate effective expression. The numbers of new words used in successive periods were 899, 445, 320, 270, and 223. The percentage of new topics introduced and the corresponding percentage of new words used are presented in Table LXXII (**264**: 59). A slight increase in fluency as represented by the

[1] Edwin H. Reeder, "What Are Life-Situations?" *Teachers College Record*, XXIX (February, 1928), 415–16.

greater length of the pupils' talks is shown in Table LXXIII (264: 60).

Outside-writing interests of junior high school pupils.—Price (182), endeavoring to determine the kinds of free writing children do out-

TABLE LXX

PERCENTAGE DISTRIBUTION OF THE SUBJECTS OF CONVERSATION

Subject	Period I	Period II	Period III	Period IV	Period V	Average
School work	23.3	16.2	10.0	9.2	13.3	14.4
Group control	11.5	9.1	5.3	7.8	6.9	8.1
Co-operative activities	15.4	0.6	2.3	1.8	5.0	5.0
Home play	25.6	21.5	32.8	35.5	20.3	27.1
Automobile trips	9.6	8.9	13.3	10.9	22.6	13.0
Minor affairs	4.7	1.2	1.6	1.4	1.6	2.1
English usage	0.4	1.4	0.8	2.4	2.0	1.4
Miscellaneous	0.7	6.8	.....	.....	.....	1.5
Animals	7.3	20.9	10.0	14.2	10.9	14.5
Special subjects	1.5	13.4	14.9	17.6	17.4	12.9

TABLE LXXI

MEDIAN PERCENTAGE OF PARTICIPATION IN THE GROUP IN THE DIFFERENT PERIODS

PERCENTAGE OF THE TOTAL NUMBER OF WORDS USED	NUMBER OF CHILDREN USING THE GIVEN PERCENTAGE OF TOTAL WORDS				
	Period I	Period II	Period III	Period IV	Period V
Below 1	17	12	8	8	9
1– 4.0	6	11	16	14	9
5– 8.0	3	4	4	4	7
9–12.0	2	4	1	3	2
13–16.0	.....	.....	.....	.....	.....
17–20	2	.....	1	.....	.....
Median	−1.0	2.0	2.7	2.8	3.0

side of classroom assignments, submitted a questionnaire to 850 pupils in Grades VII and VIII. Seventy per cent had written friendly letters; 75 per cent of these liked to write them. Eighteen per cent had written "many" business letters, while 82 per cent had written a few; 30 per cent liked to write such letters, and 61 per cent did not. Diaries had not been kept to any extent; 34 per cent had kept diaries for at least a year; 36 per cent had recorded what they had worked

on during the day. Twenty-eight per cent had written stories out of school. Poetry and plays had not been attempted except in school.

From an examination of pupil contributions to forty-six junior high school "papers"—weekly and monthly publications—Laidley (127) found a lack of descriptive writing, an absence of personal experiences, a dearth of personal feelings, and small attention to nature, to outdoor life, and to civic interests. Exposition with

TABLE LXXII

PERCENTAGE OF NEW TOPICS INTRODUCED IN EACH PERIOD AND PERCENTAGE OF NEW WORDS USED

	Period II	Period III	Period IV	Period V
Percentage of new topics introduced..	38	30	16	16
Percentage of new words used.....	35.5	25.5	21	18

TABLE LXXIII

LENGTH OF TALKS OF THIRD-GRADE PUPILS

	Period I	Period II	Period III	Period IV	Period V
Total number of talks.....	453	345	345	395	362
Percentage of talks under 50 words...	89.6	83.4	81.0	86.0	86.0
Percentage of talks between 51 and 200 words.....	10.0	16.0	18.0	13.5	14.0
Percentage of talks between 201 and 400 words.....	0.4	0.6	1.0	0.5	0.0

emphasis on information greatly predominated. Her conclusions indicate a narrow range of composition interests and suggest that writing for pupil publications does not materially expand those interests. However, her data suggest that pupils, either by instinct or by direction, tend to confine themselves to facts as contrasted with imagination, possibly a desirable tendency both for children and for adults when writing for publication.

The composition interests of seventh- and eighth-grade children.—Harris (93) asked 542 pupils in Minneapolis to indicate three choices among eleven fields for composition subjects. Ranks evaluating the first, second, and third choices of 520 pupils are shown in Table

LXXIV (**93**: 40–41). It is not surprising to find biography (largely narratives of personal experience) the first choice. With the boys, actual personal experience ranked higher than imaginary personal experience; the reverse was true with the girls. Physiology and hygiene were at the bottom of the list. Literature ranked ninth with the boys and seventh with the girls. English teachers need not be surprised that subjects of the curriculum other than literature prove more popular as the sources of topics for composition. Pupils are generally too immature for even elementary literary criticism; more-

TABLE LXXIV*

RANK OF TOPICS AS BASED ON FIRST, SECOND, AND THIRD CHOICES

	235 Boys	285 Girls	520 Boys and Girls
History	2	3	2
Biography	1	1	1
Manual training and cookery	4	2	3
Literature	9	7	7
Civil government	7	9	9
Geography	10	10	10
Physiology and hygiene	11	11	11
Personal actual experience	3	5	4
Personal imaginary experience	5	4	5
Others' actual experience	8	8	8
Others' imaginary experience	6	6	6

* Rearranged from author's data.

over, they are often surfeited with such treatment in the analytical procedures of most literature classrooms.

The general trend of preferences as determined by Harris was confirmed by Courtis (**61**: 233), who tabulated the free choices of eighth-grade pupils in Gary, Indiana. With the exception of history topics, ranked second in Harris' list and apparently ignored by the Gary children, the interests of the two groups of children were almost identical.

Preferences of junior high school pupils for composition topics.—In an inquiry by Webster and Smith ten thousand children in Grades VII–IX indicated their preferences for composition topics classified in five different categories. Their choices, which are presented in Table LXXV (**214**: 418; **252**: 78), show that personal experience was most popular; in this type of theme the children have the con-

tent of their compositions ready made. The teachers of the ten thousand pupils, asked to indicate their judgments as to the composition topics on which their pupils produced successful themes, ranked them as follows: personal experience, 63 per cent; imaginative themes, 26 per cent; how to do or to make things, 9 per cent; school expeditions and community enterprises, 2 per cent; and current events or community problems, 0 per cent.

Sex differences in preferences for composition topics.—Kimmins (**124**), who examined the essays written during the war by 3,081 children in London from eight to thirteen years of age, found that

TABLE LXXV

COMPOSITION PREFERENCES OF TEN THOUSAND PUPILS IN THIRTY JUNIOR HIGH SCHOOLS EXPRESSED IN PERCENTAGES

	CHOICES				
	1	2	3	4	5
Personal-experience topics	70.0	23.4	0.0	6.6	0.0
Imaginative themes	20.0	36.6	23.4	10.0	10.0
How to do or to make things	6.7	13.4	43.3	10.0	26.6
School expeditions and community enterprises	3.3	13.3	13.3	33.4	36.7
Current events or community problems	0.0	13.3	20.0	40.0	26.7

the boys were far more interested than the girls in the details of the war itself; they expressed themselves about such details in a detached, impersonal manner. The girls were much more reflective, preferring to discuss rather than to describe. The girls also were distinctly more emotional, writing of wounded soldiers, Red Cross nurses, and the sufferings of their own relatives; they preferred such subjects as contrasted with the causes and the details of the war itself.

The effect of various assignments on pupils' compositions.—The most extensive study concerning the probable effect on pupils' expression produced by various topics or assignments was made by Hudelson. He selected thirty-two topics, including the topics previously used by scale-makers—Willing, Ballou, Hillegas, Rice, Breed and Frostic, Lewis, Van Wagenen, and Hudelson. These topics were arranged in pairs, the two members of each pair intended to be comparable in at least one significant respect; for example,

1A and 1B in Table LXXVI (**108:** 62–63) are paired on the basis of emotional antithesis, and 7A and 7B both call for story completion.

Compositions were written on these thirty-two topics by 770 pupils in Grades VII–XII, resulting in 13,276 themes, which were scored on the Nassau scale by an average of eight judges for each theme, one of whom was the teacher of the pupil who wrote the composition. Half of the pupils wrote on the thirty-two topics in one order; the other half, in the reverse order. The pupils were allowed fifteen minutes in which to write and correct each composition.

The correlations presented in Table LXXVI show that Assignments 8A and 8B, reproductions of stories, resulted in the compositions which were most indicative of pupil achievement in all the junior and senior high school years. The median achievement by grades on Topic 8B, "Reproduce 'A Snowball Fight on Slatter's Hill,'" was almost exactly parallel with the median achievement by grades on all thirty-two assignments. This is represented in Figure 1 (p. 149). The unbroken line represents the median scores for all thirty-two assignments; the closely paralleling broken line indicates the median scores for Topic 8B, "Reproduce 'A Snowball Fight on Slatter's Hill.'" Hudelson therefore concluded that themes written by pupils of any grade on this one topic would furnish evidence of their typical ability and would enable teachers to predict the degree of excellence with which pupils can produce compositions on any subject.

Assignment 10B, "How I Learned a Lesson," represented in Figure 1 by the topmost line, apparently elicits from children in all grades considered except the seventh grade the best that is in them. The scores produced by this topic have a high correlation (.84) with the median scores for all assignments; the topic has a high correlation (.84) with its pair; and it produced in all the grades except the seventh the highest median score on the Nassau scale. Hudelson therefore concluded that themes written on this topic will reveal pupils' best, what he called "their maximal capacities in composition." Showing how well pupils can write at their best, this topic is most suitable for tests to furnish a basis for classification of pupils into ability groups.

From the foregoing data and from a table showing the records for each grade (108: 64–65), Hudelson drew among others the following conclusions.

TABLE LXXVI*

CORRELATION BETWEEN COMPOSITION TOPICS AS INDICATED BY THE MEDIAN ACHIEVEMENTS OF GROUPS OF PUPILS

Key Number of Assignment	Key Title of Assignment	Number of Cases	Pair Correlation	Correlation between Each Assignment and All Assignments
1A	The Funniest Thing I Ever Saw	724	.79	.81
1B	The Saddest Event of My Life	724		.82
2A	A story based upon a picture	214	.69	.78
2B	Another story based upon a picture	214		.77
3A	The Most Exciting Ride I Ever Had	310	.76	.84
3B	The Most Exciting Incident of My Life	310		.82
4A	What I Should Like To Do Next Saturday	311	.71	.76
4B	How I Should Like To Spend Next Fourth of July	311		.79
5A	Review an interesting book which you have read	309	.70	.67
5B	Relate an interesting story which you have heard	309		.71
6A	"Did it happen right in church?"	424	.79	.72
6B	"Don't tell Mother, for it would kill her!"	424		.79
7A	Finish "Adventure with a Panther"	441	.84	.84
7B	Finish "The Old Man's Story"	441		.77
8A	Reproduce "Adrift at Sea"	434	.84	.85
8B	Reproduce "A Snowball Fight on Slatter's Hill"	434		.87
9A	Road—evening—horse—old house—etc.	428	.78	.83
9B	Blushed—after school—Mabel—etc	428		.84
10A	My First Lie	412	.84	.78
10B	How I Learned a Lesson	412		.84
11A	A Trip to Heaven	404	.80	.79
11B	A Conversation with Mars	404		.82
12A	A composition on any subject	417	.73	.75
12B	Another composition on any subject	417		.77
13A	A narration on "Camping"	459	.80	.77
13B	A narration on "School"	459		.79
14A	A description on "Camping"	459	.77	.84
14B	A description on "School"	459		.81
15A	An exposition on "Camping"	470	.75	.81
15B	An exposition on "School"	470		.79
16A	An argumentation on "Camping"	422	.70	.75
16B	An argumentation on "School"	422		.78
	All assignments	13,276	.....	.....

* Rearranged from author's data.

1. Topics 3A and 3B have distinctly varying degrees of attractiveness for the different grades.

2. Topic 3A, "The Most Exciting Ride I Ever Had," arouses the

best efforts from the lower grades but loses some attractiveness for the higher grades.

3. Book reviews and recounted stories, Topics 5A and 5B, are relatively inferior composition topics.

4. One human interest theme, Topic 10A, appeals more to younger pupils than to older pupils.

5. Assignments which allow pupils to choose their own topics, 12A and 12B, produce results "highly indicative of their average composition ability."

6. Children do decidedly better in descriptive writing than they do in any of the other forms of discourse.

7. There seems to be a decided slump in composition ability in the ninth grade.

8. "The most striking facts about the results of this study are the small differences between the median achievements of the various grades on each assignment, the slight differences between the median achievements of the various grades on all assignments. . . . . There is far more difference on each assignment and on all assignments between pupils in any one grade than there is between the medians of the seventh and twelfth grades" (**108**: 73).

Coy (**63**) studied the effects of seventeen composition topics as reflected in the median accomplishments of a special class of superior fourth-grade pupils. She reached the conclusion that topics which challenge "the inventive imagination of these children" result in stories and tales which receive very high scores. On the contrary, topics such as "What I Want To Do When I Grow Up" and "What I Would Like To Do Next Saturday" and word lists used as topics "seem to hold the children tied to the commonplace, everyday world" (**63**: 96). Apparently the highly imaginative topics which produce the best work of fourth-grade children do not with equal effectiveness challenge the upper-grade pupils. Perry (**172**: 64) reported that groups of pertinent words given to pupils when a topic for composition is assigned tend to produce materially superior written work. Keller (**120**) also determined materials and activities which stimulate good written work.

Wiswall (**261**) found in her study of eight hundred compositions of four different types written by two hundred pupils that "the type

of topic assignment affects only slightly the kinds of sentences used" (**261**: 442). Pupils are consistent rhetorically quite without respect to different subjects for compositions. The chief value of a good subject lies in its effect on fluency of writing and general merit of content.

Stressing the content background and freedom of expression.—A significant study was made by Kimmel (**123**) to learn the effects of emphasis in English composition (1) on factual background for expression, (2) on clear and forceful writing or speaking, and (3) on the observance of conventional good usage. The theory is that expression is the product of the entire intellectual and social development of a pupil; expressional ability does not grow primarily out of a study of composition as such. Moreover, the usual method of treating pupil products, namely, the painstaking examination of those products for language errors and for little else, tends to set up inhibitions that interfere with spontaneous expression, tends to thwart any natural desire for expression by making the pupil overconscious of errors. On the contrary, given freedom to write first drafts with their attention primarily focused on content, organization, and the adaptability of their material for a specific audience, the pupils may, as a final step in their productive work, assume full individual responsibility for preparing a final draft free from gross language errors. They are then often quite capable of according painstaking self-appraisal to their first drafts; correctness in their minds is motivated by a desire to make the form of the finished product worthy of the content and the message.

To test this theory of composition, Kimmel used as subjects twenty-five eighth-grade pupils in a community-life English course; their chronological ages varied from 159 to 191 months; the range of their I.Q.'s (Terman Group Test of Mental Ability, Form A) was from 90 to 136. In their regular written work, these pupils spent much time assembling materials for their compositions and in planning their papers. Then they wrote rough drafts freely, with the class group definitely in mind as the prospective audience. They then appraised their work for language weaknesses and prepared proofread copies. All this work was done in the class laboratory. Naturally, the written products contained weaknesses. However,

the instructor did not mark the errors except in one or two problem cases but required the re-writing of papers which had not reached a reasonable standard. He used an ingenious checking device (**123**: 61) by which the improvement of the themes as revised could be readily ascertained.

A vigorous attack, centering around group discussion, was made on a few language weaknesses revealed in the first presentation tests and the earliest compositions: (1) lack of sentence sense, (2) excessive punctuation, (3) punctuation (the simpler elements) inconsistent, (4) errors in relations of pronouns and antecedents, and (5) gross language errors common to five pupils in the group.

The number of pupils compelled to re-write their themes decreased from sixteen out of the twenty-five in February to four in June. It is to be noted that the class contained five "problem" cases. The Briggs English Form Test, Alpha, given in February resulted in an average of 7.6 errors per pupil; the Beta form was given in June, the pupils making an average of 3.1 errors. Punctuation showed 59 per cent improvement. Average scores made on the Trabue Completion Test Language Scale improved from 7.75 in February to 9.72 in June; the standard score for the ninth grade is 7.5; for the tenth grade, 9.2. As evaluated by the Hudelson scale, test themes showed a class median rising from 4.75 in February to 5.87 in April, and 6.38 in June, a rapidity of progress so unusual as to create suspicion as to the accuracy of measurement.

> The data show a consistent gain in scores for all pupils in the class. The range of scores is also significant. The pupils who ranked in the lowest fourth of the class for the themes written in June ranked higher in actual scores than those pupils who were in the upper fourth of the class for the themes written in February [**123**: 67–68].
>
> Pupils make definite progress in the mastery of content materials through directed teaching in the assimilation of ideas. Pupils also gain increased power and facility in written composition through the use of content materials when their attention is directed toward clear, forceful, and adequate expression of ideas rather than toward the overcoming of errors and the mastery of other details of usage. Furthermore, mistakes in the elements of good usage decrease through directed emphasis on the positive objective in expression [**123**: 68–69].

Investigations needed.—The effect on children's expression produced by various types of topics and expressional situations needs

greatly extended investigation. Moreover, lists of topics arranged in the order in which they appear to call forth pupils' maximal efforts, however valuable, are merely preliminary. Such information needs to be supplemented by further inquiries such as those of Colvin (55) and Colvin and Meyer (56) (pp. 189–92), who tried to discover the psychological reasons for popular topics; needed also are further studies such as those of Courtis (61) (p. 220), who also attempted to determine the subjects selected by children when engaged in free expression; needed also are investigations, suggested in Kimmel's study (123) (p. 225), to ascertain the relation between the topics themselves and the frame of mind in which the pupils write their first and final drafts of compositions on those topics.

c) PUPILS' APPRAISAL OF THEIR OWN COMPOSITIONS

Certain spelling investigations have pointed the way to a much-needed field of inquiry in other branches of English. Investigators have endeavored to discover the ability of children to appraise their own work for errors, to substitute their own judgments as to the merits of their written products for the well-nigh valueless, however laborious, correcting by teachers. Lull[1] presented the data from a study showing that fifth-grade pupils "doubted correctly" 83 per cent of their misspelled words; sixth-grade pupils, 61 per cent; seventh-grade pupils, 67 per cent; and eighth-grade pupils, 67 per cent. Children in Grades V–VIII were positive that they had spelled correctly from 16 to 38 per cent of the words which they misspelled. This study indicates that a child often does not know whether or not he has spelled a word correctly, an experience to the reality of which most adults can testify. Tireman tried to discover what actually happens when a pupil is told to correct his own paper. Ninety pupils in Grades VI–VIII were directed to examine their papers for errors after each of four tests and to indicate the words they knew they had misspelled and could not correct and to re-spell any words they could correct. Tireman concluded that "this group, at least, did not possess the ability to detect spelling errors" and added that "it is im-

[1] Herbert G. Lull, "A Plan for Developing a Spelling Consciousness," *Elementary School Journal*, XVII (January, 1917), 355–61.

possible to state the exact cause for this failure" (**237**: 36). The fact is, however, that these pupils actually did discover between 73 and 92 per cent of their own errors. Moreover, they did so presumably without any extended practice. If these pupils had been trained in appraising their own work, they might have found even larger percentages of their errors. Still further, teachers are beginning to realize that the establishment of a language conscience and consciousness through pupil appraisal of their own themes is even more significant than extended drill in a few of the mechanical details of expression.

Deficient pupils taught through self-appraisal.—Effectiveness of oral and written expression is frequently reported when pupils are led to careful appraisal of their own weaknesses and are made aware of their need for improvement. Such testimony was offered by Kimmel (**123**: 60). Bowles (**23**) focused the attention of pupils failing in English on their individual errors in two general categories—sentence-building and the narrowing of their composition topics. Drills were planned for each individual with respect to the errors made. Pupil appraisal of written work was stressed. As a result, stories written at the beginning had sixty-nine sentence errors; at the end, eleven; one-half of the pupils at the beginning failed to limit their topics; none failed in the final test. Perry (**172**: 71–83) found that individual attention given by pupils to their own errors was especially efficacious in one very important respect. By testing both experimental and control groups six weeks and eight weeks after instruction and drill had ceased, she found that language improvement persisted much better after individual instruction. Investigators attribute improvement to the motivation secured when pupils are placed on their own initiative both in inventive work and in corrective work.

Effects of stimulating self-correction.—Seegers (**206**) gave to a group of 134 seventh-grade pupils the detailed results of their individual work as determined by the Willing Scale for Measuring Written Composition. The scale itself was posted, and the children were urged to employ self-correction and to measure their own work by the scale. In addition, individual pupils kept lists of the language errors which troubled them; all papers in various school subjects

were read for English as well as for content; children weak in mechanics were given special help; contests were held to determine relative improvement in correcting errors. This program was in effect for an entire school year. October and May measurements by the Willing scale showed story value improved from a median of 50 to a median of 65, while the form value exceeded the seventh-grade standard. The number of errors made by the pupils in test themes dropped more than 50 per cent between October and May. The decrease in the total number of errors is significant because the test papers written in May were 40 per cent longer than the papers written in October. The experiment shows the results of co-operation among teachers, active self-correction by pupils, individual attention to errors, and publicity given to objective marking. The experiment is open to the objection that no one teaching procedure was segregated for objective measurement.

The importance of self-aids in the learning of English.—O'Rourke (**165**) set up a self-aid program for junior high school pupils in Washington, D.C. In a series of language exercises carried on individually the pupils located their own language difficulties by means of self-correction sheets. In addition to giving the correct form for each exercise, the correction sheets directed the pupil to a reference book for a clear explanation of each principle in the use of which he had erred and for several illustrations of the application of the principle. Mixed classes which produced an average score of 30 on the initial achievement test in nouns and pronouns scored 91 on the alternative test at the close; an initial score of 30 in verbs was followed by a final score of 97. A class consisting of pupils with low I.Q.'s increased its score on the achievement test in nouns and pronouns from 17 to 80; a class consisting of pupils with average I.Q.'s, from 22 to 87.

Bowles (**24**) compared the progress of pupils given self-help remedial lessons with the progress of pupils not having such lessons. Twelve teachers, experimenting with two sections each of the same grade, gave inventory and final tests to estimate the results of instruction given in two fifteen-minute periods each week for four months. The initial tests showed the pupils to be of approximately equal language ability; the instructional material and the method were the chief variables. One series of self-help lessons dealt with

grammatical forms; a second, with capitalization and punctuation. Individual pupils in corresponding control and experimental groups were paired on the basis of the initial tests.

In capitalization and punctuation 74 per cent of the pupils in the experimental groups surpassed their partners; in grammatical forms 43 per cent of the pupils in the experimental sections surpassed, and 23 per cent equaled, their partners. Similar superiority was shown by the pupils in the experimental groups in the number of errors made in original compositions written as tests at the close of the experiment.

Inhibitory effects of attention to good form.—Courtis (**60**) gave six composition tests to all children in Grades IV–XIII (one year of junior college), inclusive, in a single school system. The curve of increasing speed in composition gradually rose from ten words a minute in Grades IV and V to twenty-three or twenty-four words a minute in Grades XII and XIII. The rise was fairly uniform up to Grade VIII, where this ability, like many others, ceased to develop rapidly. Test 1 was accompanied by the injunction "to produce good copy"; Test 3 required the writing of an original story. The rates of composition in these tests were materially lower—from four to five words less per minute grade by grade—than the rates of composition in Tests 5 and 6. These two tests were based on the reproduction of a story the pupils had read and of a story they had heard read to them. Courtis said:

> Slowing down of speed of writing in Test 1 in the effort to produce good copy was about equal to the effect of the effort put forth in composing the original story in Test 3. In other words, the difference between the two sets of curves measures the retarding influence [in speed of composition] of mental effort. Eighth-grade children able to write at the rate of twenty-two words per minute when reproducing a story they have read, or that has been read to them, were able to write but fifteen words per minute when they were forced to supply their own ideas, or when they were taking particular care to make legible writing [**60**: 384–85].

Report is made of an experiment in pupil self-rating with composition scales (**16**). Each of seventeen pupils scored his own paper on the basis of the Trabue scale. The scores given by these pupils in their self-evaluations did not differ materially from the ratings given by two teachers experienced in the use of scales. Such a use of scales

should give pupils more definite standards of excellence, stimulate interest, and throw more responsibility on the learner.

These studies seem to indicate that pupils profit by learning to appraise their own products. Self-appraisal is especially important after a freely written rough draft has been prepared by the pupil. Teachers of composition have too often made the mistake of compelling children to be error-conscious during the process of expression itself. One study by Courtis (**60:** 382) throws light on the inhibitory

TABLE LXXVII*

RESULTS OF DICTATION AS METHOD OF INSTRUCTION

	Dictation Groups			Non-Dictation Groups—Group D
	Group A	Group B	Group C	
Number of pupils	28	29	24	34
Number of errors in first test	151	215	149	232
Number of errors in test	120	146	85	230
Reduction	31	69	64	2
Possible reduction	151	215	149	232
Percentage of possible reduction	20.0	32.5	45.6	0.7

* Rearranged from authors' data.

effect of the injunction to produce good copy. Other investigators should follow Courtis' lead and endeavor to ascertain the effects of self-appraisal in the form of error-consciousness when it is stressed during the inventive stages of written or oral expression.

3. CLASSROOM PROCEDURES

a) VALUE OF SPECIAL TYPES OF INSTRUCTION

Dictation as method in teaching punctuation.—Brueckner and Cutright selected nine common uses of punctuation marks for an experiment with four comparable groups of fourth-grade children, rotating among the first three groups three methods of instruction: (1) dictation with no comment, (2) dictation with pupil comment, (3) study-dictation correction. The fourth group followed the customary fourth-grade work except that all formal instruction in punctuation was discontinued. The results are summarized in Table LXXVII (**36:** 267).

Four weeks after the close of the experiment a delayed-recall test

was administered with the following percentages of possible reduction, the delayed-recall test being compared with the preliminary test: Group A, 41.0; Group B, 38.6; Group C, 46.9; Group D, −2.1. The results appear to indicate an immediate and lasting gain for the dictation method in teaching punctuation to fourth-grade pupils.

Effects of intensive practice.—Haggerty (**89**) made a study of three thousand pupils in Grades II A–VII A in one school system, showing different levels of composition proficiency and a gradual rise in proficiency throughout a period of twenty-four weeks of intensive practice. He presents as representative of the pupils' progress the learning curves of three hundred pupils in Grade VII A in eight different schools. Grade VII A began the year lower than did Grade VIII B; made rapid advance, surpassing the higher grade; then met two months of dead level of achievement; then recovered somewhat; but was ultimately below both Grade VII B and Grade VI A. The data appear to indicate that intensive drill may have immediate but not lasting effects.

The influence of study of models accompanied by self-appraisal.—Price (**182**) measured the effect of intensive experience in analyzing and imitating models and of intensive appraisal by the pupils of their own compositions as contrasted with the formal discussion of language principles and the usual correction of compositions by the teacher. He used three experimental groups of seventh- and eighth-grade pupils and compared the results of a semester's instruction with one check group and with five classes of similar grade taught by other teachers in the same school. All the nine classes took six composition tests, four at the beginning of the semester and two repeated at the end of the semester. The Willing scale and the Hudelson scale were the two measures used in the repeated tests.

The experimental groups wrote ten compositions during the semester—friendly letters, diaries, stories, each often including dictation and analysis of models. The pupils corrected their own papers according to very specific directions, all the work being done in the classroom. Sentence errors were treated analytically and intensively in class. The check group wrote the same number and type of compositions, merely hearing the models read without dictation. The pupils in this group did not criticize their own work nor exchange

papers for correction. Their papers were marked for errors in red ink by the experimenter.

The data indicate that the three experimental groups made more frequent errors than did the other classes in the preliminary tests. The final tests, however, showed superior progress on the part of the experimental groups. The results of a comparison of the papers measured by the Willing and the Hudelson scales at the beginning and at the end of the experiment are as follows: Experimental Group A showed a reduction in errors of 74.71 per cent; Group B, 60.49 per cent; Group C, 62.62 per cent. Check Group A showed a reduction in errors of 8.15 per cent. Miscellaneous Group A showed a reduction in errors of 8.00 per cent; Group B, 11.00 per cent; Group C, 15.00 per cent; Group D, 14.17 per cent; Group E, 23.18 per cent (182: 71).

The value of drill and theme-correcting.—Norton (162) endeavored to ascertain whether the great amount of theme-reading and theme-correcting done by English teachers is justified. She set up an experiment to determine whether the traditional methods of theme-reading and theme-correcting have values that can be objectively determined and to compare improvement under such instruction with improvement resulting from drill only and from drill and revision combined. She used three comparable Sophomore classes in a ten-week experiment.

Instruction for Group A consisted of drill alone, the weekly papers being returned with no comments except marks; for Group B, drill and weekly papers returned with all errors checked, the pupils then correcting the errors; for Group C, no drill but the errors checked and the pupils required to correct their errors. Improvement of the three groups was calculated with reference to five types of errors—pronoun forms, verb forms, spelling, use of commas, and gross sentence errors. The three groups were tested by compositions written at the beginning and at the end of ten weeks, all compositions graded for errors as indicated and for composition quality by means of the Hudelson scale.

In composition quality Group B made improvement of .4 of a step on the Hudelson scale as compared with .3 of a step for Group A, while Group C made very slight improvement. If the improve-

ment in composition quality was accurately measured, the gain was high for the ten-week period. Van Wagenen and a group of one hundred co-operating teachers reported (**242**) a negligible gain after twelve weeks of practice. Norton thought that the slower progress of Group C might be accounted for by the somewhat lower I.Q.'s of the pupils in this group. She concluded that the instruction given Group B was the most fruitful.

Norton presented data which show that the traditional method of dealing with compositions, namely, returning themes with the errors indicated for correction by the pupils (Group C), was less effective in eliminating errors than drill alone (Group A) and less effective than drill and correction combined (Group B). The percentage of gain in correctness shown by Group C in the final themes as compared with the initial themes, with respect to the five categories of errors, was 23 as compared with 50 for Group A and 54 for Group B. In short, drill appears to be the most important factor, a conclusion amply confirmed by the excellent studies made by Wiswall (**261, 262**). Moreover, the laborious indicating of errors by the teacher, used with Group B but omitted with Group A, seems to have little value, since the gains in language accuracy of these two groups were about the same—54 per cent and 50 per cent, respectively. Indeed, in composition quality the gain of Group B was but slightly superior to that of Group A, namely, .1 of a step on the Hudelson scale. Arnett (**5**) reported a similar investigation with similar results.

Norton's study, which appears to have been carefully controlled, opens up for further consideration what is perhaps the most vital issue in the teaching of composition. English teachers complain of the limitless labor of correcting themes (**103**: 6–9), and there can be no question as to the validity of that complaint, *as they have traditionally carried out such labor*. Here we have a study which seems to indicate that class time spent in drill unaccompanied by burdensome theme-reading is approximately as productive of pupil improvement as drill combined with endless hours of ferreting out errors to be corrected by the pupils. Here is a most fruitful field for further inquiries.

A somewhat similar study was conducted in the Lincoln School

of Teachers College (133). Two comparable eighth-grade classes were taught by contrasted methods. One class did no writing but was drilled twenty minutes a day on language errors determined by preliminary diagnosis. The control class wrote in class weekly assigned themes, which were checked for errors by the instructor and read and criticized by the pupils in class. A comparison of data secured in October and April showed that the pupils in the drill group made materially superior progress in eliminating errors from their written work. As in all such cases of intensive drill on a few essentials, gain may readily be anticipated. The compensating losses, if there are any, are seemingly ignored.

The studies reviewed point to the value of laboratory procedure in language-composition. Dictation, the study of models and self-appraisal by the pupils, and drill are all workshop procedures. Can it be that class time thus spent, involving no special hardships for the teacher, is more productive than composition-writing by the pupils and composition-correcting by the teacher outside the classroom?

b) PRESSURE FOR GOOD ENGLISH IN ALL CLASSES

When Searson (204) asked 8,799 English teachers to name the most urgent needs for improving instruction in the mother-tongue, the largest number of votes (7,359) was recorded for the topic "specific working plans for the co-operative teaching of English in all subjects" (p. 9). Correct language habits and effective expression can never be the product of any one set of classrooms or any one set of experiences. Realizing this, educational leaders predict that the next decade will see the rapid development of programs of co-operation, by which teachers and pupils alike in all subjects will maintain a steady undercurrent of attention to correct, fluent, effective expression.

Survey of existing plans of co-operation.—Rutledge (194) and Vose (248) made surveys of the nature and extent of co-operation between departments. Rutledge found that of 201 high schools in the South and West, 31 had some definite plan of co-operation; 18 had partial co-operation; and 152 had none. Twenty-three reported that the plan of co-operation being followed was successful. Vose drew from her study the following conclusions based on the best practices. (1)

The important field for the co-operative teaching of English is the junior high school. (2) There must be a definite, progressive plan of co-operation under a competent supervisor in each school. (3) A real enthusiasm for correct and forceful English must be systematically built up in the high school. (4) The success of co-operation depends largely on the English teachers. (5) A "hospital" or "special" class may be organized to care for those senior high school pupils who have failed to reach the required standard of proficiency in English (**248**: 74).

Evaluating written expression in subject-matter classes.—One of the early experiments intended to bring under close surveillance the English expression of all the classes in a large high school was reported by Church. His plan included these features: Every teacher in the school (1) taught "subject-spelling" as necessary, (2) used occasional brief periods to supervise written English in his classroom, and (3) reported once a month a separate mark in English for each pupil in his classes. To make somewhat uniform throughout the school the English standards to be sought by all, certain minimum requirements were printed and distributed to teachers and pupils alike. All English marks other than those in the English classes themselves were called "English exponent marks" and were averaged each month; the final average was used as one-fourth of the English composition mark for the semester. Church presented three graphs showing for Latin, commercial subjects, and science, respectively, the relation between the English exponent marks and the subject-matter marks (**50**: 674–76). The English exponent marks in all three subjects were higher and had a narrower range than the corresponding subject-matter marks. A fourth graph showed that the final English marks for the semester were slightly increased because the English exponent marks were included. Pupils who were very poor in English were benefited, while pupils who were very good in English received somewhat lower marks for the semester because of the influence of the English exponent marks in their final English marks. In other words, consideration of English marks by subject-matter teachers tended to raise the marks of pupils rated low by the English department and to lower the marks of pupils rated high by the English department.

Co-operation with other departments.—Follen (79) reported the results of intensive pressure for good English during a period of eight weeks in a junior high school. Reports from every class in the school with respect to language errors made by pupils were sent to the English teachers. Dictation tests in each subject were graded for English. Test papers after the drive showed approximately 25 per cent improvement over test papers at the beginning of the experiment.

Hiatt (97) made a study from October to May in the high school at Independence, Kansas, to determine the effect of careful insistence on, and reasonable supervision over, the oral and written English used by pupils in classes other than English. Because the school was too small to permit the organization of an experimental group and a control group of pupils from the same grade, Hiatt was compelled to select ninety-seven pupils in the Sophomore class as an experimental group and sixty-seven pupils in the Junior class as a control group. The initial median score of the Sophomores on the Terman Group Test of Mental Ability was 113.75; of the Juniors, 110.62; the difference was relatively insignificant. However, the range for the two classes was from 49 to 150 for the Juniors and from 59 to 170 for the Sophomores. These wide ranges indicate in general the questionable validity of procedure which compares class medians.

Hiatt first determined the status of his subjects in language habits by means of the Nassau scale, a spelling test from Buckingham's Extension of the Ayres Spelling Scale, and the Charters Language and Grammar Tests, Miscellaneous A, Forms 1 and 2.

The plan of instruction used with the experimental group was essentially this: (1) Each pupil was provided with a style sheet containing minimum essentials of good form. (2) Subject-matter teachers in history, Latin, botany, and agriculture were asked to use the style sheet with their Sophomore classes. (3) The experimenter held frequent conferences with the subject-matter teachers. (4) Papers written for other subjects were evaluated by the English teachers. (5) The subject-matter teachers refused to accept written work if the papers contained slovenly English. (6) The pupils were invited to write themes required for the English class on topics selected from other courses. Five hundred and fifty such themes were written during the experiment. (7) Check sheets for errors,

individual lists of trouble-makers, graphs of records of improvement in written work, essay contests, and other devices were used to place a premium on language consciousness and language conscience.

In contrast, the program of instruction for the Junior class was the conventional writing of required compositions in English, criticism and correction of the compositions by the teacher, and occasional re-writing of especially poor themes.

Successive composition tests given in September, March, and May showed for the Sophomore group an increasing number of higher scores (9, 8, and 7 on the Nassau scale) and a correspondingly smaller number of lower scores. Improvement was shown in composition quality by 67 per cent of the Sophomores; no improvement, by 28 per cent; and deterioration, by 5 per cent. Improvement was made in every case by pupils who had ranked low in October. Of the control group, 23 per cent failed to make any gain in composition; 23 per cent showed actual deterioration; and 54 per cent showed improvement. As measured by the median scores, the Sophomore net gain was two and one-half times the Junior net gain.

One significant fact needs comment. Of the pupils who made poor initial scores (5 or less on the Nassau scale), the percentage of Juniors who improved exceeded the percentage of corresponding Sophomores. This fact indicates that co-operation is of no value to pupils making low scores in composition (5 or less on the Nassau scale).

The progress of the two groups in grammar was not materially different. In actual advancement as measured by the median achievement in grammar the Juniors gained twice as much as did the Sophomores, but "it is to be remembered that the Sophomores finished the year 4.82 points (on Charters tests) ahead of the standard median for their grade, whereas the Juniors finished the year 3.1 points below the standard median of achievement for Grade XI. The fact that the Sophomores actually gained .57 points in median achievement represents a satisfactory status of progress in the use of grammar, whereas the larger year's gain of the Juniors (1.5 points) represents a very unsatisfactory condition, since this class was considerably below the standard of achievement for Grade XI" (**97**: 57). The relative gains are shown in Table LXXVIII (**97**: 85).

Influencing attitudes by stressing good form in the written work of classes other than English.—Shepherd (**210**) considered the effect of drill on punctuation in seventh-grade English classes by comparing the accuracy with which the pupils punctuated papers written for a general-science class and for an English class. Estimates were made from science papers written before and after punctuation had been taught in the English class. Papers were scored for (*a*) number of occasions for using punctuation, (*b*) number of cases of correct use,

TABLE LXXVIII

CHANGES IN MEDIAN SCORES OF JUNIORS AND SOPHOMORES IN CERTAIN PHASES OF LANGUAGE

	MEDIAN			CHANGE IN MEDIAN		MEDIAN OF UNITED STATES
	October	March	May	Actual	Expected	
Composition:						
Sophomores	5.84	6.77	6.85	+1.01	+0.6	5.9
Juniors	6.09	7.22	6.48	+0.39	+0.4	6.3
Grammar:						
Sophomores	18.75	21.92	19.32	+0.57	−1.3	14.4
Juniors	15.50	15.62	17.00	+1.50	+5.7	20.1
Language:						
Sophomores	28.75	29.25	32.43	+3.68	+0.6	30.8
Juniors	27.35	27.50	28.60	+1.25	+2.7	33.5
Spelling:						
Sophomores	63.53	57.5	81.25	+17.72	.....	.....
Juniors	61.00	60.5	58.80	−2.20	.....	.....

(*c*) number of omissions, and (*d*) number of errors. The relation of the number of cases in which the punctuation was correct to the total number of opportunities for punctuation was determined $\left(\frac{b}{a}\right.$ or, in case of errors of the *d* type not included in *a*, $\left.\frac{b-d}{a}\right)$.

The results indicated that the pupils fell into three groups: (1) those whose usage learning transferred adequately to unsupervised writing; that is, pupils who wrote about equally well in science and in English; (2) those who showed some transfer; and (3) those who apparently mastered little or nothing. In addition, some pupils showed quite unaccountable ability to punctuate in science and lack of ability to punctuate in English. Of the group studied, twenty-nine pupils were in Class 1, real learners; twenty-five in Class 2,

lesson-learners; and eleven in Class 3, problem cases. Similar results had been secured in an earlier experiment (**209**).

> It seems fair to conclude that individualization of instruction, emphasis on pupil responsibility, co-operation of the various departments in holding pupils to good standards of usage, and, above all, more refined recognition of the nature of the objectives are important factors in establishing desirable attitudes on the part of pupils toward matters of English usage [**210**: 584].

Effect of school and home co-operation.—A unique and significant experiment was carried out by Sexton (**208**), who followed an earlier study of the same nature by Rader (**183**). Sexton and a group of teachers co-operated with the parents of the pupils concerned. Joint attack was made on the language errors commonly heard and made by children on the playground, in the street, at home, in social gatherings, and in many classrooms. Naturally continuous exposure to wrong language forms counteracts to a large extent the efforts of the school to fix correct habits. The plan of co-operation involved (1) a survey test of the children's language errors and of the parents' language errors and (2) the application of remedial measures to both by means of a series of bulletins addressed to the homes and by drill in the school, accompanied by contests for improvement between various rooms and by monthly standard tests to measure improvement. The weekly bulletins to the parents suggested specific errors needing attention and conveyed statistics on the frequency of errors and the results of the children's tests and additional tests to determine the improvement of the parents. One hundred and eighty-one homes agreed to co-operate, one or both parents undertaking to submit to the tests. Nine bulletins were sent to the co-operating homes.

The improvement was estimated by giving tests at the beginning and at the end of the experiment. For example, the use of Charters' Diagnostic Language Test, Miscellaneous A, Form I, showed for one seventh-grade class a median of 13, far below the seventh-grade norm of 18. At the close of the experiment the corresponding test produced a class median of 28. Similarly, a sixth-grade group improved from a median of 10 (class norm, 17) to a median of 26. In Charters' Diagnostic Language Test, Verbs, Form I (grade norm for seventh grade, 27), the pupils in the seventh grade had a median

score of 33. Similarly, the two parents' tests (informal tests constructed for the purpose and given at the beginning and at the end of the experiment) indicated a median improvement of 7 per cent and 29 per cent, respectively.

To study the persistence of improvement in this form of language training, Charters' Diagnostic Language Test, Miscellaneous A, Form I, was given in the early part of the school year following the experiment to seventy-five pupils who had been included in the study —Rooms 1–5 in Table LXXIX (**208**: 44). The test was also given to seventy-five pupils who had not been included in the school-home study—Rooms 6 and 7. Rooms 6 and 7, which had not participated in the experiment, were considerably below the grade

TABLE LXXIX

MEDIAN SCORES ON LANGUAGE TEST

	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7
Median.....	28	25	24	22	18.3	8.4	7.7
Grade norm.....	22	18.9	18.9	16.5	16.5	11.6	11.6

norms, while Rooms 1–5 were somewhat above the grade norms. However, the median scores of the pupils in the five rooms were somewhat lower than their median scores on the same test six months earlier. This follow-up measurement made by Sexton to discover the continued effect of protracted drill which results in immediate gains is worthy of the highest commendation. Such calculation is unique among the studies reported in this monograph.

The preparation of required themes in content courses.—Ullrich (**241**) attempted to discover the extent to which regular required writing of themes in a content course assisted students in the acquisition of learning. For this purpose he utilized four sections of a college course in child psychology; in two of the sections he required a weekly theme; in the other two he required no writing. In other respects instruction of the four sections was kept as nearly identical as possible. Care was taken to eliminate other differences of procedure with the corresponding groups, such variables as time of day, size of classes, the day of the week, the types of lectures, and the amount of required reading. It was not possible to eliminate slight

variations in teaching methods, questions raised by students for discussion in class, and similar elements of interplay of mind and mind which are important in all instruction. The written work was corrected, graded, and returned to the writers, the instructor discussing the errors most frequently made. The students were directed to read the corrections and comments. In the control sections the same amount of time was spent in discussing the topics on which the students in the experimental sections had written themes. The students in the corresponding sections were paired on the basis of a psychological test. The measure of progress was the final examina-

TABLE LXXX

COMPARISON OF RESULTS OF WEEKLY-PAPER GROUP AND NO-PAPER GROUP

	Number of Students	Educational Scores			Psychological Scores		
		Mean	S.D.	P.E.	Mean	S.D.	P.E.
Weekly-paper group..	30	156.13	29.40	19.83	66.90	11.94	8.05
No-paper group.....	30	152.33	33.54	22.62	66.83	12.83	8.51
Difference.....	.....	3.80	.....	.....	.07	.....	.....

tion, identical for all. A similar experiment was repeated with four other sections and again repeated with two other sections.

The results of all the experiments indicate a slight but negligible advantage in favor of the writing groups in both educational scores and psychological scores. The slight superiority of all five of the weekly-paper groups is exemplified in Table LXXX (**241**: 298).

The insignificant superiority of the groups which were required to write weekly themes raises the question as to whether the burden on both the students and instructors was justified. The students devoted a considerable portion of their time to writing with a corresponding decrease of attention to other phases of their work. The themes, usually regarded as a disagreeable task, may not arouse the students' interest sufficiently to cause the information collected to be retained for any considerable amount of time.

It is very important to consider that the type of examination given may have measured primarily the mere retention of information. Is it not possible that the theme-writing may have carried

other values, such as increased power of handling ideas and increased ability to think adequately?

The author thought that the results of his study point "to a question that seems to lie deeper than the one here investigated, that is, the question of the motivation of theme work—a problem which seems to demand investigation" (**241**: 303).

This suggestion undoubtedly has merit. It may be suggested also that the author has overlooked one major consideration from the point of view of economy of instructional effort. If the students in these classes had been taking courses in English composition during the same term, carefully supervised writing of regular themes in their child-psychology course might have rendered quite unnecessary the time and effort spent in English both by the students themselves and by the English instructors. The students' time thus saved might have been expended in the field of child psychology, and by certain administrative changes the energies of instruction expended in the classes in English composition might have been allocated (with different instructors, of course) to the department of psychology.

This plan—guiding the compositional activities of students in natural expressional situations arising in content courses, releasing them from the formal "composition courses," and transferring instructional energy from formal composition courses to content courses—is unquestionably a matter in need of extensive experimentation. A complementary line of research as yet apparently untouched is the endeavor to discover the harmful effects on expression, both as to general merit and as to language accuracy, of hastily scribbled written work in tests, examinations, and reports prepared by pupils for classes other than English. Relative to this issue very pertinent suggestions are advanced by Ruch in his discussion of written examinations.[1]

c) VITALIZED SOCIAL SITUATIONS

Effect of "socializing" instruction in English composition.—Thompson (**231**) compared the results of two different methods of teaching written composition to ninth-grade boys in a technical high school—the "socialized" method and the "academic" method. Cer-

[1] G. M. Ruch, *The Improvement of the Written Examination*, pp. 6–8. Chicago: Scott, Foresman & Co., 1924.

tain factors were kept constant in the instruction of the two groups: (1) suggested topics for compositions, (2) demonstration lessons, (3) amount and kind of optional and required reading, (4) method of correcting themes, (5) number and kind of themes, and (6) qualities of excellence sought in successive themes.

Several important factors in the socialized method were not found in the academic procedure: (1) varied and vitalized social situations used to sustain the interest of the pupils; (2) compositions always made a social problem of communication for specified readers; (3) the letter form used as the normal method of communication; (4) extensive publicity given to pupil products as motivating higher types of response; (5) attention of the pupils intensively directed to problems of communication; (6) certain dynamic social forces utilized in writing—the "story-teller motive," the "community-worker motive," and the "teacher motive"; (7) constant stress on the desire to please, benefit, or convince an audience, the need of practice, and the satisfaction of social realization.

Two groups of ninth-grade boys—an experimental group (twenty-three boys) and a control group (twenty-four boys) were utilized as subjects. Data of comparative progress were secured by identical tests given at the beginning of the study, periodically throughout the study, and at the close. Two elements of progress were considered—growth in general excellence of compositions as measured by the Harvard-Newton scale and growth in the ability to eliminate errors from routine writing as estimated by the Johnson category of errors (**231**: 116–18). The manner and the rate of learning of the two groups were estimated in arithmetic means on the basis of five monthly tests. The scores of the academic group on the five successive tests indicated little improvement: 72.39, 73.91, 76.00, 74.00, and 74.00, respectively. In contrast, the scores of the socialized group showed a more marked improvement: 74.35, 79.13, 82.99, 82.00, and 83.00. The socialized group apparently manifested a greater rate of learning, the difference in superiority of accomplishment rising from 1.96 points on the Harvard-Newton scale at the first month to 9 points at the fifth month. Both sets of scores would be represented by negatively accelerated curves, indicating that the rate of improvement was greater during the first three months.

In general, the decrease in the number of errors in language usage in all the fourteen categories of Johnson's list was more pronounced and uniform, month by month, under the socialized method. The numbers of errors per hundred words made by the two groups at the end of the monthly periods are as follows: academic group: 8.9, 8.7, 7.5, 8.0, and 7.6, respectively; socialized group: 6.8, 5.8, 5.1, 4.8, and 4.6, respectively. Such data indicate that the rate of learning was materially superior under the socialized procedure, 2.1 units and 3.0 units representing the superior attainments of the socialized group at the end of the first month and at the end of the fifth month, respectively.[1] Thompson's conclusions are "first, that, in general efficiency, the themes written by the socialized group excelled those written by the academic group; second, that the factors indigenous to the socialized method caused the pupils taught by that method to learn at a substantially greater rate than did the pupils taught by the academic method" (231: 130). Coy, working with specially gifted children, reached the same conclusion.

> The children of the special class seem to be much influenced by the presence or absence of social stimuli. Much better writing is done under the stimulus of a normal classroom environment. This seems to be especially true in the case of children with less high I.Q.'s [63: 107].

Stimulating pupils' interest in individual and group progress.—A suggestive study, throwing light on the value of creating among pupils a lively and intelligent interest in their own progress, was reported by OBrien. His subjects were 275 pupils, all the children in Grades VII–XII in two small school systems in Kansas. The experiment included five months of instruction, preceded and followed by extensive testing in order to estimate results. The instructional features emphasized were these: the pupils were made aware of the facts regarding individual and group needs as revealed by tests; standards of achievement by grades were published; all supplementary sources of material for composition work available in the community were utilized; audience situations were provided for finished pupil products; individual and group drill work was given definite purpose and definite objective in the pupils' minds, but accuracy in detail was considered by the pupils and teachers alike as "of second-

[1] Thompson made recommendations (231: 131) for further investigation.

ary importance in comparison with the merit or quality of the content" (164: 8). The preliminary and final tests were carefully scored. OBrien summarized the results as follows:

> The average gains which the pupils made during the period of this experiment varied considerably by classes and by subjects. However, the best average gains were quite remarkable. In spelling, the average gain made by the eighth-grade pupils during the five months closely approximated one and one-half years of school progress; in reading, the average gain made by the same grade was two years of school progress; in composition, the gain was equivalent to two and one-half years in Grade VIII, two years in Grade VII, and nearly a year in Grade IX. In vocabulary, the seventh-grade pupils made an average gain that was 50 per cent of their average score in the initial test; in literature, the average gain of the Sophomore class was 60 per cent of their initial test average; in rate of reading, the same class gained 37 per cent of its initial test average.
>
> Some other results of the experiment are suggested which are not subject to simple or direct measurements. These are the changed attitude of the pupils, improvement in training of the teachers, and the value for instructional or diagnostic purposes of the analyses made [164: 26].

Effects of laboratory versus recitation methods of teaching.—An experiment based on the performance of two ninth-grade classes of low ability and carried on by Chamberlain (45) compared the "laboratory" or workshop classroom procedure with the traditional "recitation" method to discover which more effectively aids pupils in overcoming language errors and in achieving progress in written composition. The two groups selected for the experiment were comparable classes of low-grade ability as determined for the ability grouping practiced in the high school at Oak Park, Illinois. They were approximately alike in median age; the median I.Q. of the control group was 2.5 points higher than the median I.Q. of the experimental group; in silent reading (Monroe Standardized Silent Reading Tests, Test III, Form I) the average pupil in the control group scored 95.15 and the average pupil in the experimental group, 88.95; similarly, in spelling, sentence recognition, English errors as determined by the Briggs English Form Test, and vocabulary as measured by the Thorndike Visual Vocabulary Scale, the control group, as measured by class medians, was consistently slightly superior to the experimental group.

The experimenter employed commendable methods of controlling the variable factors of instruction. Effort was made to keep the

following factors constant in the two groups: amount of time, particular days given to composition, manner of making up work missed by absence, all textbooks and reference books used in class, all home-reading requirements, memory work, lesson plans and suggested topics for compositions, motivation in assignments, demonstration lessons, drill work on minimum essentials, method of correcting themes, methods of collecting materials for projects, and the handling of test papers for the experiment itself.

The chief variable conditions of the two plans were these (45: 31–35):

Laboratory Plan	Recitation Plan
10 minutes of group work; 30 minutes of individual work	30 minutes of group work; 10 minutes of individual work
Limited time for discussion; attention directed primarily to individual needs	More elaborate drill; hearing compositions read; socialization of work
Large share of time devoted to actual writing of compositions. No home work	Compositions written outside of class
No group testing or appraisal of results except in the group tests for the experiment itself	Much group appraisal of results
Teacher held private conferences regularly with each pupil about his individual needs	Comparatively little pupil-teacher individual conference
Pupils trained in appraisal of their own written work	Group reactions stressed rather than individual self-appraisal

Eight monthly tests of various types given from September to April were used in estimating the progress of the groups. The number of errors made in the monthly test compositions showed a more rapid and a more material decrease for the control group. The superior growth of the control group with respect to the number of errors is shown in Table LXXXI (45: 60). In general excellence as measured by the Hudelson Typical Composition Ability Scale, the control group maintained its initial superiority, as indicated in Table LXXXII (45: 72).

In order to have a more refined type of control, Chamberlain used also the method of individual pairing known as "individual control" as contrasted with "group control." The resulting data did

not modify the conclusions reached by the group-control procedure. The final superiority of the pupils in the control group is shown by the fact that month by month in the four major tests—September, November, January, and April—an increasing number of pupils in the control group surpassed their partners in the experimental group.

The method used with the control group, in which socialization of the class period was stressed, appears to some slight degree supe-

TABLE LXXXI*

NUMBER OF ERRORS PER 100 WORDS IN MONTHLY TEST THEMES

	September	October	November	December	January	February	March	April
Control group	6.25	4.24	3.31	2.73	2.42	2.04	2.15	1.94
Experimental group	6.42	5.15	4.09	3.25	3.31	2.95	3.02	2.25

* Rearranged from author's data.

TABLE LXXXII

MEDIAN AND AVERAGE SCORES OF CONTROL AND EXPERIMENTAL GROUPS ON FOUR TEST THEMES (HUDELSON TYPICAL COMPOSITION ABILITY SCALE)

	TEST I (SEPTEMBER)		TEST II (NOVEMBER)		TEST III (JANUARY)		TEST IV (APRIL)	
	Median Score	Average Score	Median Score	Average Score	Median Score	Average Score	Median Score	Average Score
Control group	4.8	4.84	5.1	5.23	5.3	5.37	5.5	5.46
Experimental group	4.7	4.78	5.0	5.03	5.1	5.14	5.25	5.21

rior to the intensive laboratory method when the stress is largely placed on individual work. The amount of publicity given to pupil products is very important, especially when such publicity is expected by the pupils during the preparation of their themes. The rather extensive drill given in class to the control group may have been instrumental in its superior progress.[1] Morever, in this study, as in all studies comparing two groups of approximately equal attainments, the question as to the relative capacity of the groups for improvement is always pertinent. The assumption that equal attainments imply equal capacity for growth, quite tacitly made by most investigators, may be a serious case of "begging the question."

[1] See report of Norton's study (**162**) on pages 233–34.

d) UTILIZING THE CLASSROOM AS A LABORATORY

Extent of supervised study in English.—Of 168 high schools in the North Central states reporting to Davis (67) in 1926, 64 stated that they employed supervised study in their English classes; 74 of the 168 distributed their pupils in homogeneous groups; and nearly all attempted to provide differentiated instruction for pupils of varying capacity. These data are indicative of the extent of the experimentation now going forward generally in supplanting recitations with "workshop" procedure. Several investigators have endeavored to secure objective data as to the effects of such laboratory procedure.

Results of supervised study.—Another study (34) compared the results of instruction by the recitation method with the results of instruction by the supervised-study method. Comparable classes of tenth- or eleventh-grade pupils taught by the same instructor in each of four high schools were used as experimental and control groups. Progress of the comparable pairs of classes was determined by the median achievement in tests given at the beginning and at the end of the period of experimentation and by teachers' marks. School A, estimating by teachers' marks, reported a slight drop in median achievement for both groups—from 89.0 to 87.5 for the recitation group and from 84.2 to 82.5 for the supervised-study group. Each class had four failures. School B reported similar negligible differences. School C reported superiority for the supervised-study procedure, the merits being especially noticeable with the weaker pupils. Representative data from one school are presented in Table LXXXIII (34: 607).

In general, the data indicate a slight superiority for supervised study, especially as it appears to be helpful for pupils who are deficient in English. The teachers preferred the plan; the pupils, divided in opinion, preferred the recitation plan by majority vote. This is a sample of an experiment badly planned and executed. The tests had no relation to one another, and the tests after the experiment were entirely subjective. Little confidence can be placed in data thus secured.

Heckert (95) reported the results of supervising the composition of ninth-grade pupils, utilizing the Thorndike-Hillegas scale to measure progress. Two groups of seventeen pupils each of approximately

equal ability were studied, one group taught by the divided-period plan of supervised study and the other by the recitation method. Endeavor was made to determine the effect on the bright and the dull pupils. The same teacher taught both groups for twenty-five class periods of sixty minutes each. The methods of procedure followed with the two groups were not clearly described; nor were the results measured accurately. The experimenter concluded that greater gains were made under the supervised-study plan and that the brighter pupils profited more than did the duller pupils.

Dunn (71) reported an experiment with a fourth-grade class to determine the relative merits of directed and undirected study in

TABLE LXXXIII

COMPARATIVE RESULTS IN ENGLISH XI B IN SCHOOL C

	Recitation Group	Supervised-Study Group
Before experiment:		
Terman Group Test of Mental Ability	143.3	142.5
Errors in Briggs's English Form Test	7.7	6.8
Errors per 100 words in composition	1.9	2.2
Willing Scale for Measuring Written Composition	7.0	8.2
Ayres Spelling Scale (selected words)	88.1	92.5
After experiment:		
True-false test on *Macbeth*	16.0	19.0
General examination prepared by instructor	80.0	92.4
Semester mark	77.4	87.9
Number of failures	9	3

language work. The class, composed of twenty-two pupils, was divided into two equal divisions on the basis of the results of the Trabue tests in language. The experiment extended over a period of four weeks and included twenty lessons of thirty minutes each. The topics covered included oral and written composition, memorization of poems, letter-writing, and punctuation.

> In so far as the data gathered in this one instance show, there is a decided difference in results produced by the two different methods of study, and, furthermore, the data would suggest that the directed-study period is of vastly more value to children than is the undirected-study period.
>
> The differences in the study of letter-writing and of punctuation would suggest that children need guidance and direction in the working with abstract material; their interests and experiences must be utilized in order to make this kind of study develop into the right habit of work [71: 437].

Results of divided period for study and recitation.—Six English composition classes were used in an experiment by Breed to ascertain the effects of supervised study. Each of three teachers in three different high schools conducted two classes comparable in size and in composition abilities, one by a divided-period plan, thirty minutes for recitation and thirty minutes for assignment and supervision of study, the other by the ordinary recitation plan. Materials of instruction were kept uniform in both sections. Suggestions for conducting the supervised-study period were printed and distributed (**26**: 195). The results were unfavorable to supervised study; the unsupervised classes showed a greater relative gain in each of the two six-week periods in which the experiment was divided, the average improvement per pupil in the unsupervised classes being 2.9 per cent greater than the average pupil gain in the supervised-study classes. Breed used a carefully controlled technique; he computed averages for continuous groups only for pupils who participated in all the tests, excluding all who missed part of the tests; he computed three sets of averages for continuous groups, namely, teachers' scores, laboratory scores, and combined scores.

Breed (**26**: 263) continued the study with three groups made strictly comparable and changed methods in the middle of the experiment. He found that the unsupervised pupils had an average gain per pupil of 2.7 during the first part of the experiment and a still greater gain during the second part. He concluded that supervised study of the type tested was much less efficient than unsupervised work in ninth-grade English composition (**26**: 277). Of four English classes which continued through both parts of the experiment, two supervised-study classes showed a relative loss of 4.4 per cent during the first period; the other two classes, supervised during the second period, showed a relative loss of 3.9. The poorer pupils profited most.

Training in the technique of study.—Monroe and Mohlman pioneered in a field of investigation which should be widely extended in all branches of English instruction. By means of careful observation and interviews, they ascertained and recorded the definite work procedures by which capable pupils succeed in high-school literature and composition. The following sample of their case studies may be cited.

In writing a theme she [a Sophomore student, excellent in composition] selects her own topic, choosing it usually from a list which she has jotted down from time to time. She re-writes and corrects the theme several times, reads it over both silently and aloud, and then lays it aside until the next morning, when she goes over it again before the final copying. She does this because after a lapse of time she is frequently able to discover errors and imperfections which she has failed to notice. She uses the dictionary for correcting spelling and for finding synonyms and new words, and, unless the teacher has requested her not to do so, she consults reference books regarding punctuation and other doubtful points [**156**: 52].

Lindquist (**136**) supervised an experiment in college Freshman English in the State University of Iowa, in which the usual methods of conducting such classes were contrasted with what was called the "laboratory method." An experimental section of eighty-five Freshmen met five times a week in one classroom. One class hour a week was devoted to a lecture by a skilled teacher of composition; the remaining four periods the students wrote under supervision, doing all their work in the laboratory. Four control sections, all of approximately the same number of students, met three hours a week for lectures and discussion but did all their writing outside of class, unsupervised. Six carefully administered measuring devices compared the progress of the various groups throughout two semesters. The results indicated a slight superiority of improvement for the experimental group according to all six measures. The experimenter affirmed that the uniform but slight superiority according to the six measures indicated that "there is a true significance" in favor of the laboratory method (**136**: 119). This conclusion comports with the findings of various studies (pp. 227–30) which determined the value of practice accompanied by self-appraisal.

4. CONCLUSIONS

The validity of the experiments.—The experimental results presented in this chapter are undoubtedly a great improvement over the unsubstantiated opinions and vague conjectures which have appraised methods of instruction in the past. Certainly the objective measurements of actual classroom products are superior to the traditional methods of determining the value of instruction on the basis of the number of failures or the increase or decrease in the

number of promotions. The latter procedure, which uses promotion rate as a measure, is definitely fallacious; it begs the question by assuming a close relation between growth and promotion; it neglects the fact that many factors other than growth determine promotion.

However, the admission must be made that most of the statistical studies here reported were definitely lacking in certain respects: (1) they exercised inadequate control over teaching conditions; (2) they failed to isolate single variables for measurement; and (3) many of them employed unsatisfactory criteria of improvement. The experimenters themselves frankly admitted the imperfections thus enumerated.

In spite of the shortcomings of most of the objective studies in methods of teaching, the investigators have created strong presumption in favor of certain innovations in teaching language and composition. Among the more important considerations are the following.

1. Regimented group instruction in language is inferior to individual instruction. To hold a mixed class together with a reasonable minimum of language content and at the same time keep each pupil's efforts focused on his individual needs is exceedingly difficult. If adequately determined with reference to language attainments, ability grouping may aid materially in the solution of such difficulty (pp. 203–5).

2. Gifted pupils at least may be largely thrown on their own responsibility and may become their own critics (pp. 208–10). The extent to which an aroused and functioning language conscience among such pupils will improve their expression is at present largely a matter of conjecture. Moreover, Abbott and Trabue presented evidence to show that 25 per cent of high-school Seniors have better literary tastes than 25 per cent of their teachers.[1] Leonard's studies (**131, 132**) seem to indicate that capable pupils may be able to criticize their own papers for language errors fully as well as many of their teachers.

3. Coy's (**63**) study, showing the extent to which challenging topics call forth pupils' best work, suggests further investigation. In

[1] Allan Abbott and M. R. Trabue, "A Measure of Ability To Judge Poetry," *Teachers College Record*, XXII (March, 1921), 120.

what way and to what extent is excellence in composition, both in content and in quality, conditioned upon the vitality of the expressional situations into which pupils are directed? Again, granted that "personal-experience topics" are by far the most popular both with pupils and teachers (**252**), what particular content values, if any, are found in compositions written on such topics? Has the loose narrative type of organization, almost inevitable in such discourse, any lasting value in teaching pupils to think? After all, language experiences are intended to develop habits, and "what is most popular" may not be "what is most opportune." This position is perhaps in contrast with school experiences in literature which ought to develop attitudes; in literature "the opportune" may possibly deserve primary attention.

4. Class time may profitably be used for necessary drill both of individuals and of groups. It is certain that intensive drill will produce immediate results. However, vital questions arise with regard to language drill which are as yet unanswered. (*a*) To what extent does intensive group drill imply lasting improvement? (*b*) How shall a teacher know when his class has reached a plateau of language improvement? (*c*) By what teaching cycles and in what grades are certain language elements best inculcated? (*d*) What compensating losses are to be considered when classes are subjected to protracted drill? (*e*) What is the effect of language drill on pupils from cultured homes whose speech habits are natively correct? (*f*) How are pupils' language habits affected by the speech habits of teachers, especially those who practice the pernicious "and" habit common in the conversation of untrained people with little children? All these and many kindred questions are open for study.

5. The pressure for acceptable writing and speaking, if intelligently and diligently stressed in all subject-matter classes, ought materially to improve the pupils' language habits. Evidence indicates that at present the transfer of training from English classes to other expressional situations is not impressive unless strong administrative pressure (**50, 208**) is exerted on teachers and pupils alike. Experimentation in methods of teaching English has no more attractive and promising field. What is the effect of slovenly expres-

sion in content classes? What is the effect of reasonably guarded expression in content classes?

6. Some of the studies (**95, 136**) appear to indicate that the class period in language-composition may be profitably devoted to laboratory procedure. Although the experiments in supervised study (**26, 34**) have in general produced negative results, expression is beyond question a series of activities to be supervised; it is not subject matter to be taught, learned, and recited. "No subject is more truly a 'shop or laboratory subject' than English."[1]

[1] *Reorganization of English in Secondary Schools*, p. 28. Bureau of Education Bulletin No. 2, 1927.

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Reports requirements in junior and senior high schools with respect to all branches of English.

68. Diebel, Amelia, and Sears, Isabel.
"A Study of the Common Mistakes in Pupils' Written English," *Elementary School Journal*, XVIII (November, 1917), 172–85.
Discusses the results of a study of the technical errors made in written composition by elementary-school pupils in Cincinnati.

69. Dolch, Edward William, Jr.
"More Accurate Use of Composition Scales," *English Journal*, XI (November, 1922), 536–44.
Describes an investigation to discover the correlation between qualities of excellence in the themes of college Freshmen.

70. Driggs, Howard K.
"The Equipment in Written English Pupils Have on Entering the Junior High School." Unpublished Doctor's thesis, School of Education, New York University, 1926. Pp. 94.
Reports the results of an analysis and appraisal of 1,304 sixth-grade compositions from thirty-seven cities in sixteen states to estimate general excellence and percentages of various language errors.

71. Dunn, Grace A.
"The Value of Supervised Study," *Teachers College Record*, XVIII (November, 1917), 430–37.
Describes an experiment to determine the value of supervised study in the language work of a fourth-grade class.

72. Earhart, Gertrude, and Small, Jennie.
"English in the Elementary School," *Elementary School Journal*, XVI (September, 1915), 32–48.
Reports the observation of language uses of pupils in Boise, Idaho, and presents a classification and distribution of common errors for more highly concentrated instruction.

73. Elliott, Charles Herbert.
Variation in the Achievements of Pupils. Teachers College Contributions to Education, No. 72. New York: Teachers College, Columbia University, 1914. Pp. iv+114.
Reports the results of investigations of achievements of pupils taught in classes of different sizes, with particular reference to four branches of English instruction, including composition.

74. Ellison, Louise.
"Children's Capacity for Abstract Thought as Shown by Their Use of Language in the Definition of Abstract Terms," *American Journal of Psychology*, XIX (April, 1908), 253–60.
Describes a study of children's definitions to determine the relation between knowledge of words and abstract thinking.

75. The English Department, University High School, University of Chicago.
"Differentiating Instruction in Ninth-Grade English," *School Review*, XXVII (December, 1919), 772–88.
Reports the results of grouping ninth-grade pupils into accelerated, medium, and slow classes for the purpose of adapting instruction to the needs of the pupils.

76. Fillers, H. D.
"Oral and Written Errors in Grammar," *Educational Review*, LIV (December, 1917), 458–70.
Presents the results of a study of errors in grammar made by nine hundred pupils in Bonham, Texas, in oral and written language.

77. Fissher, Milton A.
"The Selection of Elementary Language Textbooks." Unpublished Master's thesis, Department of Education, University of Wisconsin, 1925. Pp. 103.
Reports the results of an analysis of existing score cards for evaluating elementary language textbooks and presents a new score card to be used by committees of teachers for appraising textbooks on eleven major items of content organization and methods of instruction.

78. Flemming, Cecile White.
A Detailed Analysis of Achievement in the High School. Teachers College Contributions to Education, No. 196. New York: Teachers College, Columbia University, 1925. Pp. xii+210.
Reports the comparative significance of certain factors in predicting successful achievement in the high school.

79. Follen, Agnes M.
"Co-operation with Other Departments," *English Leaflet*, XXIII (March, 1924), 2–11.
Presents the results of an eight-week language survey in a junior high school in Massachusetts.

80. FRETWELL, ELBERT KIRTLEY.
A Study in Educational Prognosis. Teachers College Contributions to Education, No. 99. New York: Teachers College, Columbia University, 1919. Pp. 56.
Reports the results of a study of the prognostic value of standardized tests.

81. FROST, NORMAN.
A Comparative Study of Achievement in Country and Town Schools. Teachers College Contributions to Education, No. 111. New York: Teachers College, Columbia University, 1921. Pp. 70.
Compares performance of rural-school pupils and urban-school pupils of different ages as measured by Trabue's Completion Test Language Scales.

82. GILMAN, ALBERT FRANKLIN.
"Trends of Instruction in the Writing of Business Letters." Unpublished Master's thesis, Department of Education, University of Chicago, 1927. Pp. iv+114.
Reports tendencies in instruction based on a critical examination of three sources: 112 textbooks, 27 state courses of study, and 15 large high schools in Illinois.

83. GLASS, JAMES M.
Curriculum Practices in the Junior High School and Grades 5 and 6. Supplementary Educational Monographs, No. 25. Chicago: Department of Education, University of Chicago, 1924. Pp. x+182.
Reports the results of an investigation of curriculum practices in thirteen subject fields as found in fourteen cities.

84. GOOD, CARTER V.
"English Objectives and Constants in Secondary Schools," *Peabody Journal of Education*, V (January, 1928), 230–35.
Reports the results of a canvass of courses of study in English published by state departments of education and by large city school systems to determine the objectives emphasized and the constants of instruction in secondary-school English.

85. GREENE, HARRY ANDREW.
Measurement of Linguistic Organization in Sentences. University of Iowa Studies in Education, Volume II, Number 4. Iowa City, Iowa: State University of Iowa, 1923. Pp. 64. See also "Tests for the Measurement of Certain Phases of Linguistic Organization in Sentences," *Journal of Educational Psychology*, XI (December, 1920), 517–25.
Describes procedure for testing a pupil's ability to organize the elements within sentences as one measure of his ability to express himself effectively.

86. GUILER, W. S.
"Analysis of Children's Writings as a Basis for Instruction in English," *Journal of Educational Method*, V (February, 1926), 259–64.
Presents the results of an analysis of 1,731 pieces of "free writing" of pupils in Grades II–IX, inclusive, to reveal language needs.

87. GUILER, W. S.
"Diagnosing Student Shortcomings in English Composition," *Journal of Educational Research*, XIV (September, 1926), 112–19.
Presents causes of failure of college students in English composition and reveals need for individual instruction.

88. GUNTHER, CHARLES.
"My Experience with the Hillegas Scale," *English Journal*, VIII (November, 1919), 535–42.
Presents data to show wide disparity of scores given two months apart by same teachers for same themes; shows that more equitable standards of promotion can be maintained through the use of a scale.

89. HAGGERTY, M. E.
"Measurements and Diagnosis as Aids to Supervision," *School and Society*, VI (September 8, 1917), 271–85.
Reports the results of an attempt to measure the progress of elementary-school pupils by means of the Hillegas and the Harvard-Newton scales.

90. HAGGERTY, M. E., and TRABUE, M. R.
"Grammar" and "Measurements of Ability in the English Language." In *Report of a Survey of the School System of Saint Paul, Minnesota*, pp. 402–10, 430–67. St. Paul, Minnesota: City Council of St. Paul, 1917.
Reports the results of a survey of abilities of pupils in language, grammar, and composition.

91. Haig, Anna F.
"Testing for Power To Organize Thought," *English Journal*, XVI (December, 1927), 807–10.
Describes a test designed to measure pupils' ability to organize thought.

92. HANSEN, EINAR A.
"The Effect of Certain Changes in Punctuation on Comprehension." Unpublished Doctor's thesis, State University of Iowa, 1925. Pp. viii+114+clii.
Describes an experiment in the field of punctuation with sixth-grade children in five Chicago schools.

93. HARRIS, JAMES H.
"An Inquiry into the Compositional Interests of Pupils in the Seventh and Eighth Grades," *English Journal*, II (January, 1913), 34–43.
Reports the results of a study of the choices of topics for compositions of 520 children in Minneapolis.

94. HATFIELD, W. WILBUR.
"What the Graduates of Our High Schools Think," *English Journal*, II (May, 1913), 318–22.
Summarizes the opinions of 640 high-school graduates as to the utility values of English instruction, indicating criticism of many current school practices and advocating the rhetoric of daily life.

95. HECKERT, J. W.
"The Effects of Supervised Study in English Composition," *Journal of Educational Research*, V (May, 1922), 368–80.
Shows the superiority of supervised study in ninth-grade English composition, the brightest pupils profiting most.

96. HENRY, THEODORE S.
"Results of the Educational Tests," *Classroom Problems in the Education of Gifted Children*, pp. 55–75. Nineteenth Yearbook of the National Society for the Study of Education, Part II. Bloomington, Illinois: Public School Publishing Co., 1920.
Reports the language achievement of pupils in special rooms as shown by the results of educational tests.

97. HIATT, LYMAN RAY.
"The Effect of Co-operation in Developing Language Habits." Unpublished Master's thesis, Department of Education, University of Chicago, 1925. Pp. viii+100.
Reports the results of an experiment to determine the effect of vigorous insistence on correct English in all subjects in the high-school curriculum.

98. HICKMAN, LUCIAN G.
"The Teaching of Composition and Literature in the High Schools of Indiana," *English Journal*, X (March, 1921), 142–59.
Reports the results of a survey of common practices with respect to teaching grammar, composition, and literature; shows preponderance of formal procedures.

99. HILLEGAS, MILO B.
"Scale for the Measurement of Quality in English Composition by Young People," *Teachers College Record*, XIII (September, 1912), 331–84.
Describes method used in deriving a scale for the measurement of general merit in compositions.

100. HOBSON, CLOY ST. CLAIRE.
"A Comparison of the Accomplishment Ratios of Two Selected Groups in Ninth-Grade English." Unpublished Master's thesis, Department of Education, University of Chicago, 1925. Pp. vi+111.
Reports the results of a study designed to determine the comparative effects of acceleration and non-acceleration on ninth-grade English work.

101. HOLLEY, C. E.
"Curriculum Differentiation and Administration in Typical High Schools," *Educational Administration and Supervision*, I (May, 1915), 332–40.
Presents the results of a survey of the curriculums of fifty-four high schools located in cities of four thousand or more inhabitants.

102. HOLMES, HENRY W.
"Time Distributions by Subjects and Grades in Representative Cities,"

Minimum Essentials in Elementary-School Subjects—Standards and Current Practices, pp. 21–27. Fourteenth Yearbook of the National Society for the Study of Education, Part I. Chicago: University of Chicago Press, 1915.

Compares time allotments in fifty cities by subjects and by grades.

103. HOPKINS, EDWIN M. (Compiler).

The Labor and Cost of the Teaching of English in Colleges and Secondary Schools, with Especial Reference to English Composition. Chicago: National Council of Teachers of English, 1923 (revised). Pp. 38.

Presents the results of a survey of conditions in the teaching of English composition in 123 secondary schools and 96 colleges.

104. HORN, ERNEST.

"Data on Ability-Grouping from Iowa," *Adapting the Schools to Individual Differences*, pp. 159–66. Twenty-Fourth Yearbook of the National Society for the Study of Education, Part II. Bloomington, Illinois: Public School Publishing Co., 1925.

Summarizes investigations regarding ability grouping in elementary schools.

105. HOSIC, JAMES F. (Chairman).

"Types of Organization of High-School English," *English Journal*, II (November, 1913), 575–96.

Describes wide variation in organization and in curriculum practices in all phases of English instruction in 307 high schools, with special reference to oral and written composition.

106. HOWARTH, JANE.

"A Study in Individual Variation in Language Ability in a Fifth Grade of Forty Children." Unpublished Master's thesis, Department of Education, State University of Iowa, 1918. Pp. 87.

Shows the differences in rate of progress of fifth-grade pupils in completing three exercise books in language, pointing out the need for individual drill.

107. HOYT, FRANKLIN S.

"The Place of Grammar in the Elementary Curriculum," *Teachers College Record*, VII (November, 1906), 467–500.

Reports the results of measurements which disclose the absence of relation between knowledge of English grammar and the ability either to write or to interpret language.

108. HUDELSON, EARL.

English Composition: Its Aims, Methods, and Measurement, pp. 1–100. Twenty-Second Yearbook of the National Society for the Study of Education, Part I. Bloomington, Illinois: Public School Publishing Co., 1923.

Reports the results of a series of studies carried on to ascertain (*a*) the aims of teachers of English composition, the methods of teaching employed, and the degree of realization of these aims; (*b*) the relative weights given by teachers to various elements of composition; and (*c*) the need for scientific means of measur-

ing compositions objectively. Presents objective scales for measuring maximal and typical composition abilities.

109. HUDELSON, EARL.
"Diversity of Judgment upon Standards of Content and Achievement in English," *Teachers College Record*, XXVII (September, 1925), 33–51.
Shows serious disagreement as to content of English courses of study; presents evidence of wide variation in standards of pupil achievement in composition and in evaluation of achievement.

110. HUDELSON, EARL.
"The Effect of Objective Standards upon Composition Teachers' Judgments," *Journal of Educational Research*, XII (December, 1925), 329–40.
Shows refinements of the judgments of 157 English teachers on 157 themes after training in the use of a scale.

111. HULL, CLARK L., and LIMP, CHARLES E.
"The Differentiation of the Aptitudes of an Individual by Means of Test Batteries," *Journal of Educational Psychology*, XVI (February, 1925), 73–88.
Presents scores on group tests and aptitude-criterion scores for ninth-grade pupils, showing that an algebra battery is almost as good for diagnosing aptitudes in English as an English battery itself.

112. HULTON, CHARLES E.
"Experiments in Reducing the Variability of Teachers' Marks in Grading Compositions with the Aid of a Grading Guide." Unpublished Master's thesis, Department of Education, University of Wisconsin, 1926. Pp. 98.
Describes experiments showing that a grading guide does not reduce the spread of teachers' scores.

113. JAMISON, GRACE S.
"A Study in Correlation of Allied English Abilities," *Journal of Educational Research*, VI (October, 1922), 241–53.
Measures the attainment of students in language ability and ability in written composition and determines the correlation between the two.

114. JENKINS, FRANCES.
"A Test of the Ability of Children To Use Language Forms," *Journal of Educational Psychology*, VI (June, 1915), 335–44.
Reports the results of tests of elementary-school children, showing elements of advance and retrogression in three different school years.

115. JEWETT, IDA A.
English in State Teachers Colleges: A Catalogue Study. Teachers College Contributions to Education, No. 286. New York: Teachers College, Columbia University, 1927. Pp. viii+176.
Compares the curriculum offerings in seventy-one state teachers' colleges in 1925 with the offerings in 1900.

116. JOHNSON, FRANKLIN W.
"The Hillegas-Thorndike Scale for Measurement of Quality in English Composition by Young People," *School Review*, XXI (January, 1913), 39–49.
Reports the results of a test to determine the value of the Hillegas-Thorndike scale in measuring the quality of compositions.

117. JOHNSON, ROY IVAN.
"A Study of Errors in English Composition." Unpublished Master's thesis, Department of Education, University of Chicago, 1917. Pp. 59. See also "The Persistency of Error in English Composition," *School Review*, XXV (October, 1917), 555–80.
Reports the prevalence and persistence of technical errors in composition made by Freshmen in four high schools in Kansas City, Missouri, and by Freshmen in the Kansas City Junior College.

118. JOHNSON, ROY IVAN.
English Expression: A Study in Curriculum-Building. Bloomington, Illinois: Public School Publishing Co., 1926. Pp. 106. See also "Letter Writing: A Curriculum Study in English Composition," *Journal of Educational Research*, VI (December, 1922), 423–37.
Determines the prevalence of certain characteristics of excellence and of weakness in 2,400 letters to lay the foundation for a composition curriculum adapted to pupil needs and to social aims of general training.

119. JORDAN, R. H.
"A Threefold Experiment in High-School English," *English Journal*, X (December, 1921), 560–69.
Reports the errors in punctuation, grammar, and rhetoric made by 1,013 pupils in Grades IX and XII in schools in New Hampshire and Vermont.

120. KELLER, FRANCES.
"Report on English Composition Survey." Bureau of Educational Research Bulletin No. 68. Cleveland, Ohio: Board of Education, 1926. Pp. 29 (mimeographed).
Reports materials and activities found most useful in stimulating good written English in the elementary schools in Cleveland.

121. KELLER, FRANCES.
"Report of the Second Composition Survey." Bureau of Educational Research Bulletin No. 14. Cleveland, Ohio: Board of Education, 1927. Pp. 36 (mimeographed).
Reports improvement of elementary-school pupils in Cleveland as determined by the Hillegas composition scale.

122. KELLEY, TRUMAN LEE.
"Judgments as to the Excellence of Tests when Used for Individual Measurement and Diagnosis," *Interpretation of Educational Measurements*, pp. 214–85. Yonkers-on-Hudson, New York: World Book Co., 1927.
Reports the ranking in value of various composition and language tests as determined by experts.

123. KIMMEL, WILLIAM G.
"Testing Pupil Progress in Community Life English," *Studies in Secondary Education*, II, 33–69. Supplementary Educational Monographs, No. 26. Chicago: Department of Education, University of Chicago, 1925.
Reports the results of experimental instruction in composition in which emphasis was placed first on content background for written and oral work and second on individual pupil responsibility for correctness and appraisal.

124. KIMMINS, C. W.
"Methods of Expression Used by London Children in Essay Writing at Different Ages," *Journal of Experimental Pedagogy and Training College Record*, III (June 5, 1916), 289–95.
Reports the results of an analysis of spontaneous compositions of 1,570 girls and 1,511 boys to determine the growth in the use of complex sentences between the ages of eight and thirteen years.

125. KIRBY, THOMAS J.
"A Grammar Test," *School and Society*, XI (June 12, 1920), 714–19.
Presents the results of a study extending over four years in which errors made by children were collected.

126. KIRK, H. H.
"Time Distribution by Subject and Grade," *Elementary School Journal*, XXIII (March, 1923), 535–41.
Summarizes the results of a study of time allotments in Grades I–VI in thirty schools in North Dakota.

127. LAIDLEY, MARY FONTAINE.
"Composition Interests of Junior High School Pupils," *English Journal*, XIV (March, 1925), 201–9.
Reports the results of a study of forty-six junior high school publications, revealing the narrow range of pupils' interests in spontaneous composition.

128. LAU, ARNOLD.
"Adaptation to Group Needs on Ability Bases in Ninth Grade English," *Sixth Yearbook of the National Association of Secondary School Principals*, pp. 63–85. Cicero, Illinois: H. V. Church, secretary, National Association of Secondary School Principals, 1922.
Presents minimum requirements in grammar and composition for three ability groups and reports results of teaching as determined by tests.

129. LEONARD, S. A.
"How English Teachers Correct Papers," *English Journal*, XII (October, 1923), 517–32.
Reports the results of a survey of the practices of 181 teachers, indicating that they overlook many gross errors, make flagrantly wrong corrections, and spend time on petty details.

130. LEONARD, S. A.
"Building a Scale of Purely Composition Quality," *English Journal*, XIV (December, 1925), 760–75.
Describes the construction of a composition scale for themes of pupils in Grades

IV–IX, inclusive, which eliminates the factors of mechanical accuracy and conventional usage.

131. LEONARD, S. A.
"The Wisconsin Tests of Sentence Recognition," *English Journal*, XV (May, 1926), 348–57.
Presents the results of sentence-recognition tests given to 2,674 pupils and to 3,277 pupils in Grades VII–XIII.

132. LEONARD, S. A.
"The Wisconsin Tests of Grammatical Correctness," *English Journal*, XV (June, 1926), 430–42.
Presents the scores of 3,419 pupils in Grades VII–XII representing their ability to recognize thirty-one gross language errors; arranges the language abilities in the order of their difficulty for children.

133. LEONARD, S. A.
"Dependability of Our English Measures," *Journal of Educational Method*, VI (June, 1927), 449–50.
Discusses the results of a controlled experiment in the Lincoln School of Teachers College to determine the effect of daily drill on language errors of individual pupils as revealed by preliminary diagnosis.

134. LEONARD, S. A., and MOFFETT, H. Y.
"Current Definition of Levels in English Usage," *English Journal*, XVI (May, 1927), 345–59.
Reports the classification of 102 elements of usage by 222 cultivated persons as "formally correct," "informally correct," or "illiterate."

135. LEWIS, ERVIN EUGENE.
Scales for Measuring Special Types of English Composition. Yonkers-on-Hudson, New York: World Book Co., 1921. Pp. vi+144.
Describes the experiments on which the Lewis scales are based and standardized.

136. LINDQUIST, EVERET F.
"The Laboratory Method in Freshman English." Unpublished Doctor's thesis, State University of Iowa, 1927. Pp. 129.
A statistical study of the comparative results of teaching Freshman college English by the laboratory method and by the lecture-discussion method.

137. LOCKWOOD, HATTIE ROXANNA.
"Correlation of the Mental Maturity of One Hundred College Freshmen and Their Ability To Write English Composition." Unpublished Master's thesis, Department of Education, University of Chicago, 1925. Pp. 51.
Presents the correlations of semester marks of one hundred Freshmen in the University of Denver with their ratings on a composition scale and with their scores on intelligence tests.

138. Lowe, Orton.
"English," *Report of the Survey of the Public Schools of Philadelphia*, IV, 80–112. Philadelphia: Public Education and Child Labor Association of Pennsylvania, 1922.
Reports the results of a survey of English instruction in the public schools of Philadelphia.

139. Lowell, D. O. S.
"The Teaching of English in the Secondary Schools," *School Review*, X (May, 1902), 351–63.
Summarizes the findings of a study by the Committee on Methods of Teaching and Studying English of the New England Association of Teachers of English.

140. Lowrey, J. J.
"A Study of Methods of Subordinating Grammar to Composition." Unpublished Master's thesis, Department of English, George Peabody College for Teachers, 1924. Pp. 79.
Presents the results of a critical analysis of standard textbooks, indicating the relation between the two branches of language instruction.

141. Lyman, R. L.
"Fluency, Accuracy, and General Excellence in English Composition," *School Review*, XXVI (February, 1918), 85–100.
Presents the results of a study of compositions of 322 high-school Freshmen.

142. Lyman, R. L.
"Co-operative Investigations in Ninth-Grade English," *School Review*, XXVII (May, 1919), 325–44.
Reports the results of an investigation by ninety-three teachers in fifty-nine high schools concerning the language attainments of 2,682 ninth-grade pupils.

143. Lyman, R. L.
English Grammar in American Schools before 1850. Bureau of Education Bulletin No. 12, 1921. Washington: Government Printing Office, 1921. Pp. 170.
Traces the causes of the addition of English grammar to the curriculum, shows the influence of Latin methods on English, and presents the changes in methods of teaching before 1850.

144. Lyman, R. L.
"How High-School Seniors Explain Common Errors in Reasoning," *English Journal*, XII (May, 1923), 293–305.
Reports the results of attempts of 390 high-school Seniors to distinguish between sound and unsound thinking and to explain the relations in paragraphs which they considered unsound.

145. Lyman, R. L.
"A Study of Twenty-four Recent Seventh- and Eighth-Grade Language Texts," *Elementary School Journal*, XXIV (February, 1924), 440–52.
Presents the results of a study of twelve junior high school textbooks and twelve

textbooks designed for the elementary school, showing modifications in traditional practice made for junior high school instruction.

146. McCarty, Lucy S.
"A Study in English," *Balance Sheet*, IX (October, 1927), 11–13.
Reports the types of technical difficulties encountered by Senior commercial students.

147. McCormick, B. E.
"A Study of Failures," *School Review*, XXX (June, 1922), 431–42.
Reports the results of an experiment in grouping pupils in Freshman English classes according to ability.

148. McGraw, H. Ward.
"The Use of Test Data as a Basis for Drill in Grammar," *Journal of Educational Research*, X (November, 1924), 291–96.
Reports the results of experiments with high-school pupils, showing the superiority of drill on errors revealed by the Kirby test as compared with drill based on materials in a textbook.

149. McKinney, Isabel.
"An Experiment in Criticism," *Illinois Association of Teachers of English Bulletin*, IX (October, 1916), 1–15. See also "More Comments on Criticism," *Illinois Association of Teachers of English Bulletin*, X (October, 1917), 1–8.
Describes divergence of teachers' judgments in marking themes and presents minimum requirements in form for written work in English as determined by an analysis of what thirty teachers considered in failing pupils.

150. McPhee, Clare.
"The Teaching of Language Forms," *Elementary School Journal*, XXVI (October, 1925), 137–46.
Summarizes the findings of several language-error studies; attempts to determine experimentally grade placement of the forms most frequently misused

151. Mary Agata, Sister.
"An Investigation of Eight Hundred Themes Written by College Freshmen." Unpublished Master's thesis, School of Education, University of Notre Dame, 1926. Pp. 52.
Presents the results of a critical appraisal of eight hundred themes from eleven colleges, showing the general inadequacy of instruction.

152. Mayhew, Alfred F.
"The School Composition," *American Educational Digest*, XLVII (November, 1927), 103–5.
Reports the results of a study to devise an objectively based standard of judging compositions and to provide for cumulative language instruction from grade to grade.

153. Meek, Charles S.
"Discussion" of paper "English in the Elementary Schools," *Addresses*

and Proceedings of the National Education Association, XLVIII (1910), 434–36.
Reports the results of a survey of the speech errors of 3,500 children in Boise, Idaho.

154. MINER, FLOYD H.
"The Present Status of Language Teaching in the Elementary Schools as Revealed by Eighty-eight Courses of Study." Unpublished Master's thesis, School of Education, Indiana University, 1925. Pp. 69.
Analysis and statistical treatment of representative courses of study to ascertain relative emphasis on various phases of language work in Grades I–VIII.

155. MINNICK, J. H., and BROWN, J. C.
"A Study of the Preferences of Secondary School Pupils for the Various Subjects of the Curriculum," *Teachers College Record*, XVI (November, 1915), 415–34.
Describes statistical treatment of the relation between interest in various school subjects and judgments concerning utility values as expressed by 1,600 high-school pupils in three cities.

156. MONROE, WALTER S., assisted by DORA KEEN MOHLMAN.
Training in the Technique of Study. Bureau of Educational Research Bulletin No. 20. University of Illinois Bulletin, Vol. XXII, No. 2. Urbana, Illinois: University of Illinois, 1924. Pp. 66.
Reports case studies made concerning the work habits of high-school pupils in various school subjects, including English composition.

157. MOORE, ANNIE E.
"A Quantitative Study of Oral English in the Primary Grades," *Teachers College Record*, XX (May, 1919), 265–74. See also "To What Extent Is Oral Language Allowed To Function in Primary Grades?" *The Primary School:* The Improvement of Its Organization and Instruction, pp. 142–49. Boston: Houghton Mifflin Co., 1925.
Reports the practices observed in first-grade rooms in twelve cities with regard to (*a*) the percentage of time devoted to free oral expression, (*b*) the percentage of time devoted to formal language exercises, and (*c*) the percentage of pupils who speak in a natural manner during the school session.

158. MOORE, ERNEST C. (Editor).
"English," *Minimum Course of Study*, pp. 135–94. New York: Macmillan Co., 1922.
Reports the recommendations of a committee of California teachers of English with regard to minimum essentials in elementary English courses.

159. MOORE, MARY C., and HORNE, PERLEY.
"Report on Courses of Study in English for Public Schools," *School Review*, XI (November, 1903), 746–76.
Reports the results of a survey of the 1902 English curriculum for Grades I–X in representative New England centers.

160. MYERS, B. E.
"Language Demons," *Journal of Education*, LXXXIV (November 9, 1916), 467.
Reports the results of an analysis of ten thousand errors in oral and written English collected by teachers in cities in South Dakota.

161. NORBERG, LESTER M.
"A Study of the Errors in Grammar of Park City High School Students." Unpublished Master's thesis, Department of Education, University of Utah, 1927. Pp. 77.
Presents a course of study in grammar based on the actual language needs of pupils as revealed by tests.

162. NORTON, CECILE I.
"The Value of Theme-correcting in High School Composition Classes." Unpublished Master's thesis, School of Education, University of Southern California, 1924. Pp. 103.
Describes a study made with experimental and control groups to determine the relative values of three methods of eliminating language errors.

163. NOYES, ERNEST C. (Chairman).
"Report of the Committee on the Articulation of the Elementary Course in English with the Course in English in the High School," *English Journal*, III (May, 1914), 303–23.
Summarizes the results of a study by a committee of the National Council of Teachers of English of the articulation between the English courses in elementary schools and high schools.

164. OBRIEN, F. P.
An Experiment in Supervision of English. Kansas Studies in Education, Volume I, Number 6. Bulletin of the University of Kansas, Vol. XXVII, No. 12. Lawrence, Kansas: University of Kansas, 1926. Pp. 32.
Presents the results of controlled experiments in motivating both accuracy and general excellence in the language work of Grades VII–XII in two Kansas school systems.

165. O'ROURKE, L. J.
"Self-Aids in the Learning of English," *English Journal*, XVI (April, 1927), 260–71.
Determines the effects of self-appraisal and self-correction of individual language errors.

166. OSBURN, W. J.
"What and When in Grammar in Terms of Usage." Madison, Wisconsin: State Department of Public Instruction, 1924 (mimeographed). Pp. 17.
Reports the results of an analysis of elements of grammar used by 173 children in Grades III–VIII in unstudied composition, from which are derived a list of "elements of marked social value" and a list of "elements of doubtful value."

167. PARKER, R. E.
"The English of High-School Students," *English Journal*, XV (February, 1926), 107–10.
Describes the results of placement examinations in English given to Freshman registrants in the University of California.

168. PARKINSON, WILLIAM D., WALKER, ALBERT PERRY, and DEERING, GRACE L.
"The Course of Study in English—The Call for It, the Character of It, and the Construction of It," *School Review*, XV (October, 1907), 559–75.
Reports the results of a survey of the 1907 English curriculum in representative New England centers.

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"How Our High School Graduates Regard Their Instruction in English," *English Leaflet*, XXIII (April, 1924), 1–16.
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"A Statistical Study of Usage and of Children's Errors in Capitalization," *English Journal*, XIII (December, 1924), 727–32.
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"A Statistical Study of Children's Errors in Sentence-Structure," *English Journal*, XIV (September, 1925), 529–35.
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"Home Co-operation in Promoting Good Speech," *Illinois Association of Teachers of English Bulletin*, XII (November, 1919), 1–11.
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"A Comparison of 'Honor' and 'Zero' Sections in English Composition," *Educational Research Bulletin* (Ohio State University), VI (April 27, 1927), 183–85, 198.
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"The Problem of Formal Grammar in Elementary Education," *Journal of Educational Psychology*, IV (March, 1913), 125–37.
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"An Experiment in the Teaching of High-School Composition." *School Review*, XXI (October, 1913), 538–41.
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Analytic Survey of State Courses of Study for Rural Elementary Schools. Bureau of Education Bulletin No. 42, 1922. Washington: Government Printing Office, 1922. Pp. vi+116.
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The Relation between Grade School Record and High School Achievement. Teachers College Contributions to Education, No. 166. New York: Teachers College, Columbia University, 1925. Pp. viii+70.
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"The English Curriculum," *English Journal*, XVI (June, 1927), 440–45.
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"A Statistical Study of Current Usage in Punctuation," *English Journal*, XIII (May, 1924), 325–31.
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"Interdepartmental Co-operation in the Teaching of English." Unpublished Master's thesis, Department of English, George Peabody College for Teachers, 1923.
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195. SACKETT, LEROY W.
"Comparable Measures of Composition," *School and Society*, V (February 24, 1917), 233–39.
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gas composition scale, Ballou's narration scale, and arbitrary score-card method; shows superiority of score-card method.

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"Intelligence Tests and the Classification of Students in Ninth-Grade English," *Educational Administration and Supervision*, IX (December, 1923), 547–53.
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"Results of Classification of Pupils Based on Ability as Shown by Intelligence Tests, Tests of Achievement and Teachers' Marks," *The Problem of the Elementary School Principal in the Light of the Testing Movement*, pp. 276–83. Second Yearbook of the Department of Elementary School Principals. Washington: Department of Elementary School Principals of the National Education Association, 1923.
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199. SCHWEGLER, LYDIA M.
"A Study in English Connectives," *English Journal*, XIV (March, 1925), 213–21.
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"A Study of the Common Mistakes in Pupils' Oral English," *Elementary School Journal*, XVII (September, 1916), 44–54.
Reports the results of a study of the errors in oral language made by pupils in Grades III–VIII, inclusive, in Cincinnati.

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"Meeting the Public Demand," *English Journal*, X (June, 1921), 327–31.
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204. SEARSON, J. W.
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"Improvement in Language Work," *Elementary School Journal*, XXIV (November, 1923), 191–96.
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"Relation of Achievement in Formal Grammar to Achievement in Applied Grammar," *Journal of Educational Research*, XIV (December, 1926), 401–2.
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"An Experiment in School and Home Co-operation in Language Training," *Public School Messenger*, XXIII (November, 1925), 29–44. St. Louis, Missouri: Board of Education.
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209. SHEPHERD, EDITH E.
"A Preliminary Experiment in Teaching English Usage," *Studies in Secondary Education*, II, 91–108. Supplementary Educational Monographs, No. 26. Chicago: Department of Education, University of Chicago, 1925. See also "An Experiment in Teaching English Usage to

Junior High School Pupils," *School Review*, XXXIII (November, 1925), 675–84.
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210. SHEPHERD, EDITH E.
"The Attitude of Junior High School Pupils toward English Usage," *School Review*, XXXIV (October, 1926), 574–86.
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"Analysis of the Common Errors in the Speech of Children," *Journal of Education*, LXXXII (December 30, 1915), 665–66.
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"The Variability of Teachers' Marks," *English Journal*, XI (September, 1922), 414–24.
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"Training in the Technique of Thinking as a Means to Clearer Thinking," *School and Society*, XVIII (September 22, 1923), 358–60.
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214. SMITH, DORA V.
"The Danger of Dogma concerning Composition Content," *English Journal*, XV (June, 1926), 414–25. Reported also in *Teaching English in the Junior High School* by Edward Harlan Webster and Dora V. Smith, pp. 76–83. Yonkers-on-Hudson, New York: World Book Co., 1927.
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"Technical Points in Elementary English," *Elementary School Journal*, XIX (September, 1918), 54–68.
Reports the results of an investigation in which fifty-four courses of study for elementary schools were checked to determine the different technical points in English emphasized and the grades in which each appeared.

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"Teaching Language under the Individual Method," *The Problem of the Elementary School Principal in the Light of the Testing Movement*, pp. 367–70. Second Yearbook of the Department of Elementary School

Principals. Washington: Department of Elementary School Principals of the National Education Association, 1923.
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"Emphases in Southern High Schools within the Field of English." Unpublished Master's thesis, School of Education, George Peabody College for Teachers, 1926. Pp. 100.
Reports the results of an investigation to determine the relative emphasis on four main aspects of English instruction, to ascertain the specific abilities emphasized in the four fields, and to discover the phases least satisfactory to English teachers themselves.

218. STARCH, DANIEL, and ELLIOTT, EDWARD C.
"Reliability of the Grading of High-School Work in English," *School Review*, XX (September, 1912), 442–57.
Reports the results of an investigation to determine the variation in marks assigned by teachers and their reliability.

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"Measurement of Eighth Grade Composition," *School and Society*, II (August 7, 1915), 208–16.
Compares compositions written by eighth-grade pupils with compositions written by eighth-grade pupils in the same school three years later.

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"Individual Instruction in English Composition." Unpublished Doctor's thesis, School of Education, Harvard University, 1927. Pp. 304.
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221. STEVENSON, P. R.
Smaller Classes or Larger. Journal of Educational Research Monographs, No. 4. Bloomington, Illinois: Public School Publishing Co., 1923. See also *Relation of Size of Class to School Efficiency.* Bureau of Educational Research Bulletin No. 10. University of Illinois Bulletin, Vol. XIX, No. 45. Urbana, Illinois: University of Illinois, 1922. Pp. 40.
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Class-Size in the Elementary School. Bureau of Educational Research Monographs, No. 3. Ohio State University Studies, Volume II, Number 10. Columbus, Ohio: Ohio State University, 1925. Pp. 36.
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"A Comparison of the Hillegas and Harvard-Newton Scales in English Composition," *Pedagogical Seminary*, XXIII (December, 1916), 498–501.
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How Much English Grammar? Baltimore: Warwick & York, Inc., 1924. Pp. 224.
Reports the results of an investigation of the frequency of use of grammatical constructions in various types of writing and of experiments to determine the relation between use and error.

225. STRATEMEYER, FLORENCE B., and BRUNER, HERBERT B.
Rating Elementary School Courses of Study. Studies of the Bureau of Curriculum Research of Teachers College, Columbia University, Bulletin No. 1. New York: Teachers College, Columbia University, 1926. Pp. 194.
Reports a list of 40 courses of study in language out of 925 which were rated 4 or above on a five-point scale of excellence by trained judges using a score card.

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"The Effect of Locality on Language Errors," *Journal of Educational Research,* VIII (October, 1923), 239–51.
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Reports the use of an elimination test resulting in the segregation of the lowest 10 per cent in pre-English remedial clinics and the effects of special remedial measures.

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"The Educational Achievements of Gifted Children," *Report of the Society's Committee on the Education of Gifted Children,* pp. 169–84. Twenty-Third Yearbook of the National Society for the Study of Education, Part I. Bloomington, Illinois: Public School Publishing Co., 1924.
Reports the educational achievements of 643 gifted children.

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"Improving Teachers' Estimates of Composition Specimens with the Aid of the Trabue Nassau County Scale," *School and Society,* VII (February 2, 1918), 143–50.
Compares teachers' judgments of specimen compositions when unaided by scale and when aided, indicating the lessening of variation through the use of standards.

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"The Hillegas Scale," *English Leaflet* (January, 1913), pp. 1–8.
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Education, University of Chicago, 1918. Pp. 78. See also *School Review*, XXVII (February, 1919), 110–33.
A statistical study of the results produced by the two methods of teaching composition to classes of boys in a high school in Cleveland.

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"Essentials of Elementary English," *Tenth Yearbook of Superintendents and Principals Association of Northern Illinois* (May, 1915).
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"The Reliability of Essay Marks," *Forum of Education*, IV (June, 1926), 85–91.
Reports the results of several studies showing wide variation in teachers' judgments in evaluating compositions of secondary-school pupils.

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"A Scale for Merit in English Writing by Young People," *Journal of Educational Psychology*, II (September, 1911), 361–68.
Describes the early work in scale construction.

235. THORNDIKE, EDWARD L.
Extension of the Hillegas Scale for the Measurement of Quality in English Composition by Young People. New York: Teachers College, Columbia University, 1915.
Presents the first important modification of the Hillegas scale.

236. THORNDIKE, EDWARD L., EVANS, ANNIE L., KENNON, LAURA H. V., and NEWCOMB, EDITH I.
"An Inventory of English Constructions with Measures of Their Importance," *Teachers College Record*, XXVIII (February, 1927), 580–610.
Lists English constructions found in English grammars, children's compositions, *Encyclopaedia Britannica*, writings of experts, literary selections, and elementary textbooks and presents the results of a measure of the importance of each.

237. TIREMAN, L. S.
"Determination of the Ability of a Group of Sixth-, Seventh-, and Eighth-Grade Pupils To Proofread Their Written Work for Errors in Spelling." Unpublished Master's thesis, College of Education, State University of Iowa, 1924. Pp. 38.
Experiments with ninety pupils show that they have very limited ability to detect or to correct their own errors.

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Completion-Test Language Scales. Teachers College Contributions to Education, No. 77. New York: Teachers College, Columbia University, 1916. Pp. x+118.
Describes the derivation of thirteen completion tests which are classified as

"language scales" because they show high correlation with other tests of language ability.

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"Supplementing the Hillegas Scale," *Teachers College Record*, XVIII (January, 1917), 51–84.
Describes the preparation of the supplement to the Hillegas scale and explains its value for classroom teachers.

240. TRESSLER, J. C.
"High-School Grammar: An Investigation," *English Journal*, VI (December, 1917), 645–57.
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241. ULLRICH, OSCAR A.
"The Effect of Required Themes on Learning," *Journal of Educational Research*, XIV (November, 1926), 294–303.
Reports the results of experiments with ten groups of college Sophomores, indicating that the writing of required themes in content subjects very slightly enhances the learning in these subjects.

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An Investigation into the Amount of Improvement in Ability To Write English Composition. Bulletin of the University of Minnesota, Vol. XXII, No. 5. Minneapolis, Minnesota: University of Minnesota, 1919. Pp. 18.
Reports the findings of a study of the improvement in composition after twelve weeks of practice.

243. VAN WAGENEN, M. J.
"The Accuracy with Which English Themes May Be Graded with the Use of English Composition Scales," *School and Society*, XI (April 10, 1920), 441–50.
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244. VAN WAGENEN, M. J.
"The Minnesota English Composition Scales; Their Derivation and Validity," *Educational Administration and Supervision*, VII (December, 1921), 481–99.
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"Language Abilities and Their Relations to College Marks," *Journal of Educational Psychology*, XI (November, 1920), 459–73.
Compares the prognostic value of ability in composition with that of ability in reading with relation to scholastic records of college students.

246. VAUGHAN, W. E.
"A Survey of Freshman College Composition," *Peabody Journal of Education*, II (September, 1924), 99–104.
Reports the results of a study to determine the percentage and classification of errors made by Freshmen in themes written during the first twelve weeks in college.

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"High-School Composition," *Virginia Public Schools: A Survey of a Southern State Public School System*, II, 198–222. Yonkers-on-Hudson, New York: World Book Co., 1921.
Reports the results of a test in English composition given to first-year pupils in twenty-five high schools in Virginia and describes the derivation of the Virginia supplement to the Hillegas scale.

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"Co-operative Teaching of English in the Secondary Schools." Unpublished Master's thesis, Department of Education, University of Illinois, 1925. Pp. 78.
Presents the results of a survey of school practices which extend pressure for accurate writing and speaking into classes other than English.

249. WASHBURNE, CARLETON.
"The Attainments of Gifted Children under Individual Instruction," *Report of the Society's Committee on the Education of Gifted Children*, pp. 247–61. Twenty-Third Yearbook of the National Society for the Study of Education, Part I. Bloomington, Illinois: Public School Publishing Co., 1924.
Shows the need of permitting pupils to make progress through the various subjects at their own rates.

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Reports the results of experiments in fitting the schools to individuals.

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"Contemporary Trends in Oral English Instruction." Unpublished Master's thesis, Department of Education, University of Chicago, 1926. Pp. v+110.
Reports the results of a study of fourteen state courses of study, fourteen city surveys, twenty-nine textbooks, and practices in fourteen representative high schools to discover the tendencies of instruction in oral English.

252. WEBSTER, EDWARD HARLAN, and SMITH, DORA V.
Teaching English in the Junior High School. Yonkers-on-Hudson, New York: World Book Co., 1927. Pp. xii+404.
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"Diagnostic Measurement as a Basis for Procedure in the Teaching of English Language and Grammar." Unpublished Master's thesis, School of Education, Indiana University, 1924. Pp. 2+99.
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254. WILLING, MATTHEW H.
"Measurement of Written English Composition in the Public Elementary Schools of Denver, Colorado." Unpublished Master's thesis, Department of Education, University of Chicago, 1916. Pp. 56. See also "Measuring the Quality of the Composition." In *Report of the School Survey of Denver*, Part II, pp. 59–63. Denver, Colorado: School Survey Committee, 1916. See also "The Measurement of Written Composition in Grades IV to VIII," *English Journal*, VII (March, 1918), 193–202.
Presents the scores of 2,614 pupils in Grades IV–VIII, showing steady progress by grades and much overlapping.

255. WILLING, MATTHEW H.
Valid Diagnosis in High School Composition. Teachers College Contributions to Education, No. 230. New York: Teachers College, Columbia University, 1926. Pp. viii+64.
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256. WILLING, MATTHEW H.
"Individual Diagnosis in Written Composition," *Journal of Educational Research*, XIII (February, 1926), 77–89.
Compares the use of original compositions with the use of reading tests as means of diagnosing ability in composition.

257. WILSON, G. M.
"Locating the Language Errors of Children," *Elementary School Journal*, XXI (December, 1920), 290–96.
Summarizes the results of five studies of language errors of children.

258. WILSON, G. M.
"Language Error Tests," *Journal of Educational Psychology*, XIII (September and October, 1922), 341–49, 430–37.
Describes the making and standardizing of tests that will determine children's ability to recognize and correct the most common language errors; three tests of equal diagnostic value.

259. WILSON, G. M.
"After-Test Value of Language Error Tests," *The Problem of the Elementary School Principal in the Light of the Testing Movement*, pp. 371–80. Second Yearbook of the Department of Elementary School Principals.

Washington: Department of Elementary School Principals of the National Education Association, 1923.
Describes a study in which language-error tests were used in diagnosing the language difficulties of particular rooms and of individual pupils.

260. WILSON, MALLALIEU A.
"Persistency of Error in the Use of the English Language by School Children." Unpublished Master's thesis, Department of Education, University of Southern California, 1923. Pp. 115.
Reports the results of a study to determine the relative degree of heinousness of the twenty most frequent errors in grammar in the oral English of school children.

261. WISWALL, ZILLA E.
"A Study of Sentence Structure in Eighth-Grade Composition," *Elementary School Journal*, XXVI (February, 1926), 441–48.
Reports the results of an experiment to determine the effect of topic assignments on proficiency in sentence structure in the compositions of eighth-grade pupils.

262. WISWALL, ZILLA E.
"Improvement in Sentence Structure," *English Journal*, XVI (September, 1927), 518–27.
Reports the results of brief intensive drill on two sentence errors in awakening language consciousness and language conscience.

263. ZOOK, DOTT EARL.
"Language, Grammar, and Composition in American Elementary Schools." Unpublished Master's thesis, Department of Education, University of Chicago, 1923. Pp. viii+208.
Presents analysis of fifty-eight courses of study, 1918–23, to show commonly recommended "objectives," "pupil activities," and "prevention and elimination of errors" in the field of language, grammar, and composition in the elementary school.

264. ZYVE, CLAIRE T.
"Conversation among Children," *Teachers College Record*, XXIX (October, 1927), 46–61.
Reports the topics third-grade children discuss spontaneously.

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